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REPORT  
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CANAL COMMISSIONERS,

MADE

TO HIS EXCELLENCY, JOHN L. BEVERIDGE,

GOVERNOR OF ILLINOIS.

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DECEMBER 1, 1875.

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SPRINGFIELD:  
STATE JOURNAL PRINTING OFFICE.  
1875.





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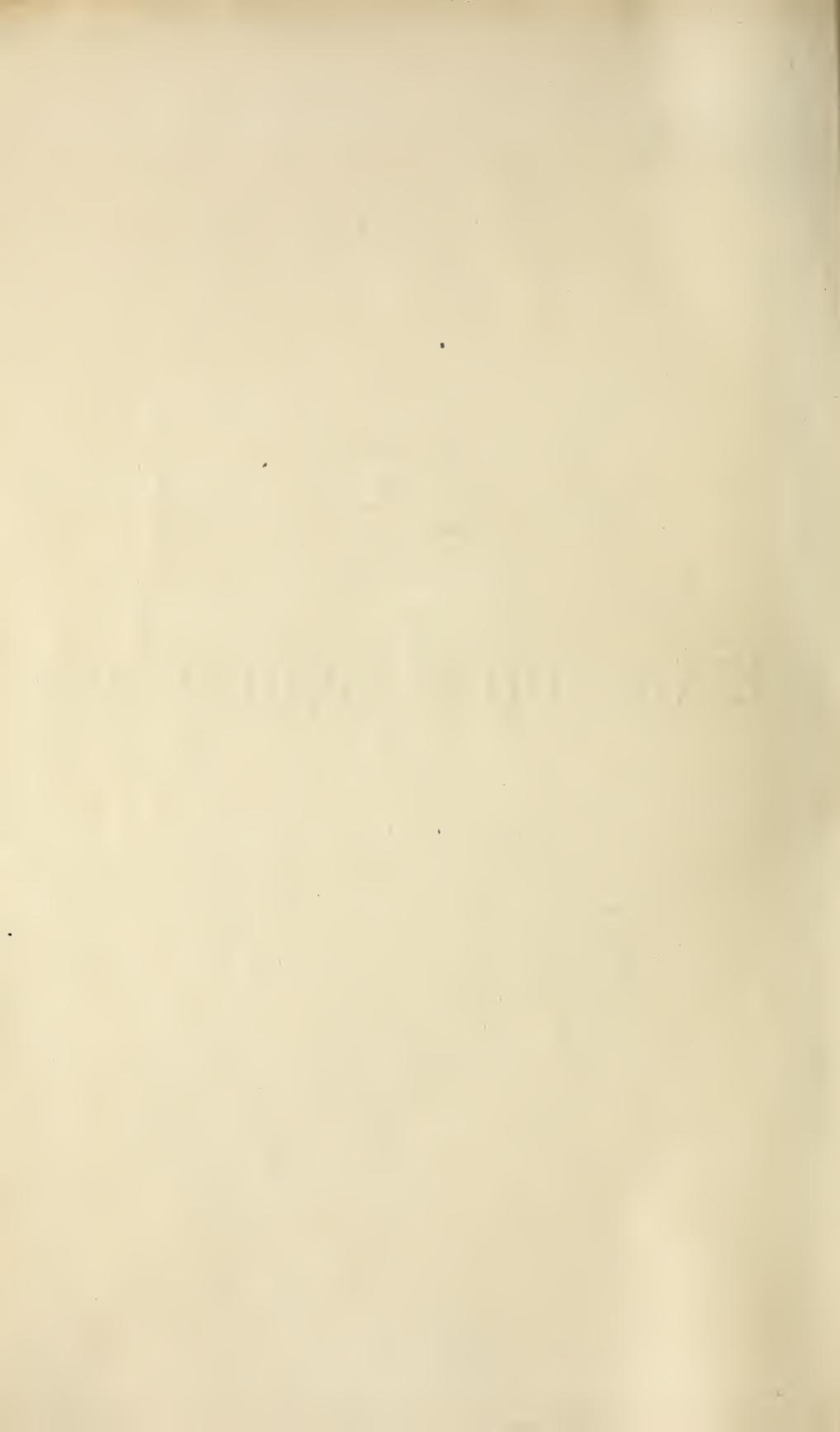
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REPORT  
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CANAL COMMISSIONERS.

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DECEMBER 1, 1875.

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## REPORT OF THE COMMISSIONERS.

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OFFICE OF THE CANAL COMMISSIONERS,  
LOCKPORT, ILL., December 1, 1875.

To His Excellency JOHN L. BEVERIDGE, Governor:

In accordance with the provisions of section 13, of "An act to revise the law in relation to the Illinois and Michigan Canal, and for the improvement of the Illinois and Little Wabash rivers," approved March 27, 1874, in force July 1, 1874, the Canal Commissioners beg leave to submit their annual report.

The organization of the Board of Canal Commissioners continued the same as at the date of our last report, Dec. 1, 1874. After their re-appointment to be their own successors, the board reorganized, May 5th, by choosing Joseph Utley, President, having charge of the maintenance and repairs of the Illinois and Michigan Canal, and the lock and dam in the Illinois river, at Henry; H. G. Anderson, Treasurer, having charge of all moneys received from tolls, sales of lots and lands, and rents of water-power and leased lots; and W. N. Brainard, Secretary, having charge of the general office at Lockport, including the books, maps and papers, and all lots and lands belonging to the State of Illinois and under the charge and control of the Canal Commissioners.

There has been uninterrupted navigation maintained on the canal from the opening on the 15th day of April last, until the closing on the 28th day of November, except five days in the month of July, caused by the rapid and large growth of water-grass in the Morris level. To such an extent had the grass accumulated that it became necessary to draw off the water and remove the troublesome obstruction. Also three days on the Dresden level in the first part of November, caused by the breaking down of one span of the Kankakee aqueduct.

There has been a further reduction in the cost of ordinary repairs during the past season of \$2,898, and an increase of extraordinary repairs of \$3,611, as will be seen by reference to table marked "N." In our reports for 1873 and 1874 we stated that that part of the canal known as the deep cut, extending from Bridgeport to Sag, was a constant source of anxiety and expense; slides are constantly occurring on this portion of the canal. We have continued the plan mentioned in our last report, of driving piles in the worst places, filling in brush and old bridge plank between the piles and bank, dredging out in front of, and depositing the material back of the piles. During the past season we have added to our machinery on this work one new pile driver, at a cost of about \$1,200; have purchased 1,629 piles, at a cost of \$3,117 78, making a line of piles of over three miles in length; have paid for driving piles and dredging, \$9,594 07, making a total of \$13,911 85, which is

properly chargeable to extraordinary repairs, as the necessity for this extra work is wholly caused by the deep excavation through a remarkably soft alluvial soil with a slope of but one foot to one.

In our last report to your Excellency we called attention to the Ogden-Wentworth canal, and gave a full description of that work and the results of its construction, in carrying large amounts of the soft material of the Mud Lake region into the canal, thereby endangering and perhaps seriously obstructing navigation. A careful examination of the canal at Lockport, from the lock east for a distance of about one mile, in the month of September, last, revealed the fact that our worst fears were realized; it was with great difficulty that loaded boats could approach the docks and warehouses at Lockport on account of the large deposit of material, evidently from the Ogden and Wentworth canal. In the latter part of October, last, the dredge was removed from the deep cut to Lockport and put to work removing this deposit mentioned above; work was continued until about the close of navigation at a total cost of \$1,495 77. We understand that measures have been adopted by the authorities of the city of Chicago to prevent the future overflow of the Aux Plain river into the Ogden and Wentworth canal, thus, in a great measure, preventing the washing of material through the Chicago river into the canal. We estimate that a further expenditure of at least \$5,000 will be necessary to remove the balance of the deposit, from the same source, in the hydraulic basin and canal at Lockport. In a previous report we stated that the timbers in the Kankakee aqueduct were fast decaying and would soon require renewal; in July, last, the towpath bridge of the aqueduct broke through and has been rebuilt at a cost of about \$1,400; in November the floor timbers of one span of the aqueduct broke down and was immediately repaired at a cost of about \$466. A portion of the timber for rebuilding the aqueduct is on the ground (costing \$1,202 62) and the balance has been contracted for to be delivered early in the spring.

The timbers of the bridge over the canal at Exchange street, Joliet, were found to be very much decayed and the bridge in a dangerous condition; the city of Joliet made application to the Commissioners to build an iron bridge the whole width of the street to correspond in width with the one across the Aux Plain river, but a few rods distant and on the same street; feeling that we had no authority to comply with the request, an arrangement was made with the city authorities by which a very substantial iron bridge, suitable to the wants of that city, was built at a cost of about \$3,400, of which sum the State has paid \$797 37, that being the estimated cost of repairing the stone abutments and building a good, ordinary canal bridge.

On account of the necessity for rebuilding the Kankakee aqueduct and the hull of the steam dredge, the extraordinary repairs will be considerably increased the coming year over that class of expenditures for either of the two previous years.

There has been a large falling off of tonnage and receipts from tolls on the canal and lock at Henry this year, which was expected, in consequence of the short crops along the line of the canal and river the past two years, and the continued depression of business generally. The tolls on the canal and lockage at Henry collected for the year ending November 30, 1874, were \$153,341 61, and for the year ending November 30, 1875, \$114,120 18, showing a falling off of \$39,221 43. The gross expenses of the canal for 1874, including ordinary and extraordinary repairs, were \$73,798 38, and for 1875, \$74,511 86. The

net revenue of the canal and lock at Henry for 1875 is \$54,040 08, being nearly \$6,000 less than the estimate made in our report of last year. The prospect for business on the canal next season is more encouraging from the fact that very large crops of grain have been raised this season along the line of the canal and Illinois river.

#### LITTLE WABASH RIVER IMPROVEMENT.

As by far the greater portion of the business transacted on the river is done upon the pool of the dam between New Haven and Carmi without passing through the lock, and as there is no law authorizing the collection of tolls upon this traffic, the greater part of benefit of this improvement to the State, from tolls, is lost. We called the attention of your Excellency to this matter in our last annual report, and recommended the Legislature to pass a law authorizing the collection of tolls upon the commerce of the river between these points; but the Legislature failed to pass such a law, consequently the State is deriving but very little benefit from the large outlay in making that improvement.

The receipts for tolls on property passing through the lock for the past year are.....	\$103 36
Receipts for rent of water power.....	330 00
	<hr/>
	843 36
Total expense for maintenance and repairs has been .....	\$360 69
Amount repaid Treasurer in part payment of amount advanced last year (\$362 73).....	72 67
	<hr/>
	843 36

Leaving a balance to be paid of \$290 06, as will appear more in detail by annexed table marked "L."

#### COPPERAS CREEK LOCK AND DAM.

By referring to our last annual report of December 1, 1874, it will be seen that at that date the foundation of the lock had been completed, and three courses of the lock walls had been laid to the height of 6 $\frac{1}{2}$  feet, and that the amount of work done by the State, in construction, and for materials delivered, including engineering and incidental expenses, was \$81,724 84, and total amount paid to that date was \$72,505 09. During last winter stone cutting was continued at the quarries, and the cut stone delivered at the lock early in the spring. The contractor, Willard Johnson, commenced work on the lock walls about the middle of May and continued the work until the 17th day of July last, when he made an application to the Board of Commissioners for their consent to assign and transfer his contract for this work, from the 1st day of July, to Archibald McArthur, of Chicago (including the reserved 15 per cent.), who having given a new bond for \$67,000, for the faithful performance of the terms of the said contract of Willard Johnson with the State of Illinois, for the completion of the lock and dam (except the foundation of the lock), signed by Archibald McArthur and Roswell K. Bickford, of Chicago, and William McArthur, of Cheboygan, Michigan, the Commissioners, after a careful examination of the whole matter, consented to the assignment of the contract. The work progressed very well until the latter part of July, when an immense rain fall took place along the Illinois river and its tributaries, raising the water so high at the lock that it became necessary to flood the lock pit in order to save the breaking in of the coffer dam. The work was suspended on the lock walls and was not resumed until the 11th day of September, since which time the work has progressed successfully, the lock walls being now nearly completed.

For further particulars concerning the work we refer you to the accompanying report of the chief engineer, D. C. Jenne.

The total amount of work performed by Willard Johnson to the 30th day of June, was \$131,060, on which was paid \$111,401. Since that time the amount of work done by Archibald McArthur has been \$39,780, on which has been paid, including November estimate, \$33,813 and also \$5,500, being  $\frac{1}{3}$  of the 15 per cent. reserved on completed lock walls. Estimated cost of same \$110,000. The total amount of work now done by the State is \$170,840, and the total payments made, including November estimate, is \$150,714. The chief engineer reports that he sees no reason for changing his estimate, made in our last report, of the amount of the cost of the work to be performed to complete the contract, which was \$298,549; this leaves a balance of work remaining to be done of \$127,709. In consequence of the Legislature at the last session not making the appropriation asked for by the Commissioners to complete the work by the first of January, 1876, as contemplated when the contract was let, the increase of engineering expenses by reason of the delay of one year is estimated to be about \$5,000; from present appearances this will be the only increase in the cost of the lock and dam over the estimate of last year, unless something unforeseen should occur. The entire cost of the work now stands as follows:

Amount expended by U. S. government on foundation .....	\$62,359 80
" " " State .....	11,367 33
Estimated cost of lock and dam at contract prices .....	298,549 00

Estimated cost of lock and dam at contract prices .....	\$372,276 13
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Contingent expenses to date .....	83,050 34
Engineering expenses to date .....	14,045 65
Engineering expenses to complete .....	10,000 00
Contingent expenses to complete .....	1,350 00

Total cost .....	\$28,445 99
Deduct amount expended by U. S. government .....	\$400,722 12
" " " State .....	62,359 80

Balance for State .....	\$338,362 32
Amount done by State to date:	
On foundation .....	\$11,367 33
On contract for lock and dam .....	170,840 00
For engineering and incidentals .....	14,045 65
For contingent expenses .....	3,050 34
Total done by State .....	199,303 32

Remaining to be done .....	\$129,059 00
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The available funds in the State Treasury to the credit of the Illinois River Improvement fund, after paying November estimate, are as follows:

Cash on hand with State Treasurer .....	\$14,812 28
United States bonds .....	40,000 00
Estimated interest and premiums on U. S. bonds .....	6,600 00

\$61,412 28	
The estimated amount to complete the work, including the 15 per cent. reserved and engineering expenses is .....	\$159,185 00
From which deduct the amount of funds in State Treasury .....	61,412 28

Leaving a balance to be provided for from funds on hand and from revenues from canal and lock at Henry of .....	\$97,772 72
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Providing the tolls on the canal and lock at Henry are sufficient this next season, of which there is not much doubt, the lock and dam at Copperas creek will be completed by the close of the season of navigation of 1876, provided that the water in the Illinois river should be low enough during the summer months to admit of the dam being built.

All of which is respectfully submitted.

JOSEPH UTLEY,  
H. G. ANDERSON,  
W. N. BRAINARD,  
*Canal Commissioners.*

*Receipts and Disbursements of Illinois and Michigan Canal, and Lock at Henry, from December 1, 1874, to November 30, 1875, inclusive.*

ILLINOIS AND MICHIGAN CANAL.	
Receipts from all sources, to-wit:	
Tolls .....	\$107,081 82
On notes .....	225 78
From leases of water power .....	4,692 24
"    " "90 foot strip" and lots .....	3,815 00
From sale of lots and lands .....	4,443 58
Miscellaneous .....	3,280 32
	<u>\$123,538 74</u>
(For details see annexed tables, marked respectively "A," "B," "C," "D," "E," and "F."	
Total disbursements, to-wit:	
Tolls and rents .....	\$13,052 61
"    " (Deposited in State Treasury) .....	40,000 00
Canal property .....	383 46
Maintenance and repairs .....	61,075 79
	<u>114,511 86</u>
Balance .....	\$9,026 88
For details see annexed tables, marked respectively "G," "H," and "I."	
Balance on hand, Dec. 1, 1874, as per report of Canal Commissioners, page 13 .....	30,148 76
	<u>\$39,175 64</u>
LOCK AT HENRY.	
Total receipts from all sources .....	\$7,038 86
Total disbursements .....	2,025 16
Balance .....	\$5,013 20
For details see annexed tables, marked respectively "J," and "K."	
Balance on hand Dec. 1, 1874, as per report of Canal Commissioners, page 13 ...	5,702 65
Amount now on hand on deposit with Corn Exchange National Bank of Chicago, to credit of Treasurer of Board of Canal Commissioners .....	10,715 85
	<u>\$49,891 49</u>

## "A."—Tolls on Canal.

Date.	No. of rec'dt	Name of Collector.	Where collected.	Amount.
1874. Dec.	31..	13 Wm. Milne .....	Lockport .....	\$48 46
1875. April	30..	30 Albert F. Dow .....	Chicago .....	2, 824 73
"	30..	31 Wm. Milne .....	Lockport .....	796 93
"	30..	32 W. E. Codding .....	Ottawa .....	919 26
"	30..	33 W. T. Mason .....	LaSalle .....	883 19
"	30..	34 W. T. House .....	Henry .....	1, 331 72
May	31..	40 Albert F. Dow .....	Chicago .....	6, 748 49
"	31..	41 Wm. Milne .....	Lockport .....	1, 704 44
"	31..	42 W. E. Codding .....	Ottawa .....	2, 151 20
"	31..	43 W. T. Mason .....	LaSalle .....	512 50
"	31..	44 W. T. House .....	Henry .....	787 84
June	30..	51 Albert F. Dow .....	Chicago .....	7, 648 75
"	30..	52 Wm. Milne .....	Lockport .....	1, 199 43
"	30..	53 W. E. Codding .....	Ottawa .....	1, 691 02
"	30..	54 W. T. Mason .....	LaSalle .....	1, 028 65
"	30..	55 W. T. House .....	Henry .....	189 86
July	31..	62 Albert F. Dow .....	Chicago .....	8, 501 62
"	31..	63 Wm. Milne .....	Lockport .....	1, 982 56
"	31..	64 W. E. Codding .....	Ottawa .....	1, 766 46
"	31..	65 W. T. Mason .....	LaSalle .....	1, 870 80
"	31..	66 W. T. House .....	Henry .....	610 65
August	31..	72 Albert F. Dow .....	Chicago .....	7, 562 88
"	31..	73 Wm. Milne .....	Lockport .....	2, 853 04
"	31..	74 W. E. Codding .....	Ottawa .....	1, 738 11
"	31..	75 W. T. Mason .....	LaSalle .....	1, 010 62
"	31..	76 W. T. House .....	Henry .....	188 42
September	30..	80 Albert F. Dow .....	Chicago .....	8, 963 84
"	30..	81 Wm. Milne .....	Lockport .....	4, 801 77
"	30..	82 W. E. Codding .....	Ottawa .....	2, 977 49
"	30..	83 W. T. Mason .....	LaSalle .....	1, 488 23
"	30..	84 W. T. House .....	Henry .....	395 64
October	31..	92 Albert F. Dow .....	Chicago .....	9, 198 16
"	31..	93 Wm. Milne .....	Lockport .....	4, 865 23
"	31..	94 W. E. Codding .....	Ottawa .....	3, 002 67
"	31..	95 W. T. Mason .....	LaSalle .....	1, 093 93
"	31..	96 W. T. House .....	Henry .....	139 10
November	30..	110 Albert F. Dow .....	Chicago .....	7, 480 26
"	30..	111 Wm. Milne .....	Lockport .....	2, 145 50
"	30..	112 W. E. Codding .....	Ottawa .....	1, 514 52
"	30..	113 W. T. Mason .....	LaSalle .....	402 75
"	30..	114 W. T. Milne .....	Henry .....	61 10
		Total .....		\$107, 081 82

## "B."—Received on Notes.

Date.	No. of rec'dt	Name.	Remarks.	Amount.
1875. April	5..	24 W. H. Hall .....	Int. on note, 20 y'rs sale	\$42 66
"	22..	26 Morris Poor .....	" 20 "	15 12
May	25..	38 Thomas Dawson .....	Note \$150, Interest \$18.	168 00
		Total .....		\$225 78

## "C."—Leases of Water Power.

Date.	No. of rec'dt	Name.	Location.	Amount.
1874. December	15..	9 S. D. Sprague .....	DuPage dam .....	\$100 00
1875. January	5..	15 Norton & Co .....	Lockport .....	1, 368 50
"	9..	17 G. W. Hyde .....	Dam No. 1, Joliet .....	681 10
May	3..	35 Ottawa Hydraulic Co .....	Ottawa .....	375 00
September	10..	77 Norton Co .....	Lockport .....	1, 191 22
"	11..	78 G. W. Hyde .....	Dam No. 1, Joliet .....	601 42
October	30..	90 Ottawa Hydraulic Co .....	Ottawa .....	375 00
		Total .....		\$4, 692 24

## "D."—Leases of 90 feet Strip and Lots.

Date.	No. of rec'dt	Name.	Location.	Amount.
1875. January 5..	14	Sherwood School Furni- ture Co.....	Morris.....	\$100 00
" 5..	16	Lockport Paper Co .....	Lots in blocks 122, 124, 126 and 127, Lockport.....	80 00
Feb'y 10..	21	George F. Kirby.....	Near Lemont .....	50 00
April 20..	25	John T. Randall.....	Strip in S. W. qr. 27, 34, 9 Shannahan.....	5 00
" 26..	27	N. J. Brown .....	Lemont .....	100 00
May 14..	37	Adam Smith.....	Hydraulic property and lots adjoining, at Bridgeport .....	1,250 00
June 5..	45	C. E. Ward .....	Strip near Grand Lock, Joliet.....	200 00
" 7..	46	James Clark & Son .....	Utica .....	50 00
" 18..	49	Singer & Taleott Stone Co .....	Near Lemont .....	50 00
July 19..	57	W. N. Thompson .....	Utica .....	50 00
" 22..	58	Norton & Co .....	Strip east, lot 1, block 122, Lockport .....	10 00
" 22..	59	" .....	Lots 2, 3 and 5, block 122, Lockport, and reserved ground .....	190 00
August 24..	68	Griffen & Connelly .....	Near Willow Springs .....	50 00
" 24..	69	James Carey .....	Lot 10, block 126, LaSalle .....	15 00
" 31..	70	Nathaniel Blanchard .....	LaSalle .....	100 00
Octob'r 22..	87	M. C. Follansbee .....	Near Willow Springs .....	20 00
" 22..	88	F. Mehring .....	" .....	20 00
Nov. 12..	97	A. S. Piper & Co .....	Near Lemont .....	175 00
" 22..	99	George F. Kirby .....	Hydraulic property and lots adjoining, at Bridgeport .....	50 00
" 30..	107	Adam Smith.....		1,250 00
		Total .....		\$3,815 00

## "E."—Sales of Lots and Lands.

Date.	No. of rec'dt	Name.	Description.	Amount.
			<i>Lots.</i>	
1874. Dec. 14..	8	James E. Casey .....	Lots 3 and 4, block 113, Lockport .....	\$250 00
1875. Feb. 9..	19	Union Coal Co., of Peru .....	Blocks 149, 152, 153 and 154, LaSalle—First payment .....	\$1,550
			Interest .....	279
" 9..	20	G. F. Contant, Wm. Da- vidson and Jas. Batten .....	Lots 3, 4, 5, 6, 7, 8, 9 and 10, blocks 150 and 151, LaSalle—First payment .....	1,829 00
			Interest .....	45
May 13..	36	J. G. Nattinger .....	Lots 1, 2 and 3, block 39 O. T., Ottawa .....	295 00
June 7..	47	Michael Byrne .....	Lot 5, block 118, LaSalle .....	400 00
				550 00
			<i>Lands.</i>	
1874. Dec. 26..	11	W. B. Ogden .....	Part of island in S. E. qr., 1, 38, 12—10 26 acres .....	\$200 00
1875. April 27..	23	Dennis Donahue .....	N. W. qr. N. E. qr. 1, 32, 5, 39—20 acres— First payment .....	\$196 00
			Interest .....	35 28
June 12..	48	Thos. Kavanagh, Thos. Wagner & Jno. Henebry .....	S. W. qr. 17, 33, 9; 153 acres—First pay- ment .....	231 28
			Interest .....	\$53 31
				104 99
				688 30
		<i>Lots</i> .....		\$3,324 00
		<i>Lands</i> .....		1,119 58
		Total .....		\$4,443 58

## "F."—Miscellaneous.

Date.	No. of rec'dt	Name.	From what received.	Amount.
1874. Dec. 1..	1	F. X. Lafontaine.....	Lease of ice at Joliet.....	\$66 66
" 8..	2	H. A. Smith.....	" " Morris.....	44 00
" 9..	3	S. V. Arnold, J. W. Arnold and Jas. Wright .....	" " Lockport .....	25 25
" 10..	4	Lewis Gebhard .....	" " Morris .....	19 00
" 12..	6	Huse, Loomis & Co.....	" " LaSalle .....	70 00
" 12..	7	Thos. E. McGrath .....	" " Morris .....	35 00
" 25..	10	Nelson Card, L.P. Marsh .....	" " Ottawa .....	199 00
1875. Nov. 28..	98	Huse, Loomis & Co.....	" " LaSalle .....	70 00
" 24..	100	M. & W. Callaghan .....	" " .....	100 00
" 24..	101	John M. Welsh .....	" " .....	110 00
" 25..	102	H. A. Smith .....	" " Morris .....	44 00
" 29..	103	Lewis Gebhard .....	" " .....	19 00
" 29..	104	Robert L. Schofield .....	" " .....	5 00
				\$806 91
1874. Dec. 31..	12	Corn Ex. Nat. Bank, Chi.	Int. on ac't for Dec., 1874.....	\$124 52
1875. Jan. 31..	18	" "	Jan., 1875.....	129 37
Feb. 28..	22	" "	Feb., .....	107 98
Mch. 31..	23	" "	Mch., .....	115 25
April 30..	29	" "	April, .....	101 29
May 31..	39	" "	May, .....	123 62
June 30..	50	" "	June, .....	113 77
July 31..	61	" "	July, .....	134 36
Aug. 31..	71	" "	Aug., .....	158 49
Sept. 30..	79	" "	Sept., .....	187 96
Oct. 31..	91	" "	Oct., .....	230 64
Nov. 30..	108	" "	Nov., .....	241 44
				1,761 69
July 9..	60	Illinois Stone Co.....	Wh'l'b'w h'dls, wh'l's, sold them.....	\$48 00
Aug. 20..	67	J. A. Boyer .....	" wh's, hubs, sold him .....	15 60
Oct. 14..	83	S. W. Norton .....	" handles, sold him .....	34 00
" 15..	86	James Cash .....	" .....	15 00
				112 60
				68 67
1874. Dec. 11..	5	B. Lowenthal .....	Old iron sold him .....	60 00
1875. July 13..	56	Willard Johnson .....	Piles, short .....	22 05
Oct. 25..	89	P. Gilligan .....	Assistance rendered boat "Sunbeam" from State hands .....	100 00
Nov. 30..	105	Jonas Ingraham .....	One old horse sold him .....	348 40
" 30..	106	Benjamin L. Bowen .....	" .....	
" 30..	108	Albert F. Dow, Coll .....	" Spoil bank" stone sold during season .....	
			Total.....	\$3,280 32

## "G."—Charged to Tolls.

Date.	No. of v'chr.	Name.	For what expended.	Amount.
1874. Dec. 31..	1	Wm. Thomas .....	Pay-roll for labor .....	\$851 67
1875. Jan. 31..	24	" .....	" .....	851 67
Feb. 28..	39	" .....	" .....	851 67
Mch. 31..	64	" .....	" .....	851 67
Apr. 30..	97	" .....	" .....	1,171 67
" 30..	141	Dean Bros. & Hoffman .....	Collector's books and blanks .....	189 00
" 30..	142	H.A. McCaleb, Co. clerk .....	Justice and court costs—ice cases .....	14 60
May 31..	146	Wm. Thomas .....	Pay-roll for labor .....	1,171 67
June 30..	189	" .....	" .....	1,171 67
July 31..	234	" .....	" .....	1,171 67
" 31..	267	Albert F. Dow .....	R. R. fare, coal, telegraphing .....	19 00
Aug. 31..	271	Wm. Thomas .....	Pay-roll for labor .....	1,171 67
" 31..	317	W. T. Mason .....	R. R. fare, repairs to col'ctr's office .....	9 25
" 31..	318	W. E. Coddington .....	R. R. fare, telegraphing, express .....	12 75
Sept. 30..	322	Wm. Thomas .....	Pay-roll for labor .....	1,171 67
Oct. 31..	361	" .....	Interest refunded .....	11 47
" 31..	403	G. W. Hyde .....	Pay-roll for labor .....	1,171 67
Nov. 30..	408	Wm. Thomas .....	Stationery, coal, R. R. fare .....	16 50
" 30..	458	Albert F. Dow .....		
			Deposits in State Treasury .....	\$13,052 61
June 5..	188	Thos. S. Ridgeway, S. Tr.	Deposited in State Treas... \$10,000	
Nov. 6..	407	" .....	" " " 5,000	
" 30..	463	" .....	" " " 25,000	
			Total.....	40,000 00
				\$53,052 61

## "H."—Canal Property.

Date.	No. of v'chr.	Name.	For what expended.	Amount.
1875. March 31..	95	F. C. Ingalls .....	Legal services.....	\$50 00
May 31..	181	G. D. A. Parks .....	" .....	25 00
" 31..	182	W. S. Myers .....	" .....	20 75
" 31..	183	L. S. Parker .....	" .....	10 00
June 30..	239	J. G. Nattinger .....	Deed given in error .....	66 66
Novemb'r 30..	462	F. C. Ingalls .....	Legal services, costs .....	211 05
		Total.....		\$383 46

## "I."—Maintenance and Repairs.

Date.	No. of v'chr.	Name.	For what expended.	Amount.
1874. December 31	2	C. A. Welch .....	Pay-roll for labor .....	\$838 71
" 31	3	W. B. Titus .....	" .....	578 63
" 31	4	Western Union Telegr. Co.	Telegrams during Nov., 1874 .....	5 44
" 31	5	Great Western Telegr. Co.	" Dec., " .....	5 47
" 31	6	Corn Exchange Nat. Bank	Expressage on currency .....	31 80
" 31	7	Lee Bro's & Dickinson .....	Elm lumber .....	109 20
" 31	8	Norton & Co. .....	Lumber, oil, nails, bran .....	60 79
" 31	9	George B. Martin .....	Oats, coal, ground feed .....	100 15
" 31	10	Emery & Martin .....	Lumber, sawing .....	99 98
" 31	11	Baldwin & Stone .....	Iron, nails, bolts .....	12 23
" 31	12	J. Rupley & Son .....	Washers, nails, bolts .....	11 41
" 31	13	B. B. Clark .....	Rubber boots .....	22 00
" 31	14	Chicago and Alton R. R.	Freight .....	44 61
" 31	15	United States Express Co.	Expressage .....	4 15
" 31	16	Wm. Thomas .....	R. R. fare .....	25 20
" 31	17	C. A. Welch .....	" wood, nails, rope .....	17 55
" 31	18	W. A. Steel .....	Stone .....	449 06
" 31	19	Brooks & Co. .....	Nails, steel, bolts, iron .....	62 60
" 31	20	H. Humphrey .....	Castings and labor .....	29 64
" 31	21	G. H. Rugg .....	Sawing elm lumber .....	10 67
" 31	22	W. B. Titus .....	R. R. fare, blacksmithing .....	33 80
1875. January 31	25	C. A. Welch .....	Pay-roll for labor .....	750 72
" 31	26	W. B. Titus .....	" .....	326 63
" 31	27	Western Union Telegr. Co.	Telegrams for Nov. and Dec., 1874 .....	4 08
" 31	28	S. D. Kimbark .....	Difference on tap and dies .....	2 25
" 31	29	J. Rupley & Son .....	Nails, tacks, axe-handle .....	10 45
" 31	30	Dr. W. Bradley .....	Oil, glass, ink, liniment .....	6 65
" 31	31	George B. Norton .....	Warp, factory, thread .....	6 93
" 31	32	Wm. Thomas .....	R. R. fare .....	22 50
" 31	33	C. A. Welch .....	" .....	10 44
" 31	34	Joliet Iron and Steel Co. .....	Labor on castings .....	10 50
" 31	35	Hyde & Nelson .....	Lumber .....	8 11
" 31	36	Wm. Stormont .....	Castings and labor .....	13 50
" 31	37	Strawn & Powell .....	Oats .....	104 31
February 28	40	C. A. Welch .....	Pay-roll for labor .....	706 25
" 28	41	W. B. Titus .....	" .....	338 75
" 28	42	Western Union Telegr. Co.	Telegrams during Jan., 1875 .....	2 12
" 28	43	Fraser, Chalmers & Co. .....	Repairs on engine .....	192 98
" 28	44	Norton & Co. .....	Lumber, nails, coal, bran .....	37 48
" 28	45	George B. Martin .....	Oats, oil, coal, matches .....	79 16
" 28	46	Baldwin & Stone .....	Bolts, iron, zinc .....	8 15
" 28	47	Frank Hopkins .....	Oak and elm lumber .....	41 90
" 28	48	D. C. Baldwin .....	Hay .....	78 00
" 28	49	Orestes S. Reed .....	" .....	17 27
" 28	50	A. C. Paxson, P. M. .....	Postage .....	67 10
" 28	51	Chicago and Alton R. R.	Freight .....	1 96
" 28	52	United States Express Co.	Expressage .....	5 40
" 28	53	Wm. Thomas .....	R. R. fare .....	19 65
" 28	54	C. A. Welch .....	" augers .....	9 56
" 28	55	Wm. Adam .....	Lumber .....	11 70
" 28	56	Shuler & Bro .....	" .....	13 00
" 28	57	John Toombs .....	Hay .....	18 83
" 28	58	W. B. Titus .....	R. R. fare, freight, coal .....	21 18
" 28	59	W. N. Brainard .....	Copy R. Stat. bind'g rept., spec. rep.	29 60
" 28	60	" .....	R. R. fare and ex. as Com'snr 3 mo.	63 50
" 28	61	Joseph Utley .....	" .....	25 35
" 28	62	H. G. Anderson .....	" .....	68 40
March 31	65	C. A. Welch .....	Pay-roll for labor .....	797 21
" 31	66	Eddy & Smith .....	" .....	473 54

## STATEMENT.—CONTINUED.

Dates.	No. of v'chs.	Name.	For what expended.	Amount.
1875. March	31	W. B. Titus .....	Pay-roll for labor .....	\$600 25
"	31	Scott R. Wilder .....	" "	267 91
"	31	Western Union Teleg. Co .....	Teleg'ms during Jan. and Feb. .....	14 35
"	31	70 Oglesby & Mattingly .....	Ash lumber .....	17 50
"	31	71 Gilbert Hubbard & Co .....	Oakum, rope .....	135 19
"	31	72 B. F. Shaw .....	Envelopes .....	4 50
"	31	73 Alexander Reid .....	Stone, labor .....	118 00
"	31	74 Norton & Co .....	Lumber, nails, rope, oil .....	45 55
"	31	75 George B. Martin .....	Oats, coal, oil .....	58 18
"	31	76 J. Rupley & Son .....	Nails, bolts, iron .....	19 51
"	31	77 Orestes S. Reid .....	Hay .....	6 75
"	31	78 A. C. Paxson, P. M. .....	Postage .....	26 25
"	31	79 Chicago and Alton R. R. .....	Freight .....	3 70
"	31	80 U. S. Express Co. .....	Expressage .....	3 40
"	31	81 Wm. Thomas .....	Railroad fare .....	13 00
"	31	82 Brooks & Co. .....	Bolts, iron, shovels, pipe .....	82 96
"	31	83 Adam Werner .....	Stone, Mason work .....	31 50
"	31	84 A. Bruce .....	Steam pile driver .....	900 00
"	31	85 Straw & Powell .....	Lumber, hay, oats .....	164 31
"	31	86 Phillips & Co. .....	Lumber, hay, oats .....	20 59
"	31	87 Child, Bro. & Phipps .....	Rubber boots .....	9 50
"	31	88 John Leonard & Co. .....	Blacksmithing .....	59 25
"	31	89 M. A. & S. E. Dewey .....	Picks, shovels, bolts, nails .....	69 95
"	31	90 John Manley .....	Iron, screws, bolts, nails .....	19 72
"	31	91 E. Y. Griggs .....	Lead, oil, glass, paint .....	56 53
"	31	92 Edmund Davy .....	Coal .....	3 50
"	31	93 W. B. Titus .....	R. R. fare, freight, blacksmithing .....	27 80
"	31	94 Scott R. Wilder .....	R. R. fare, stabling, hay .....	14 80
April	30	98 C. A. Welch .....	Pay-roll for labor .....	1,034 66
"	30	99 H. G. Eddy .....	" "	896 68
"	30	100 Wm. Keough .....	" "	514 67
"	30	101 Almond Thomas .....	" "	528 04
"	30	102 W. B. Titus .....	" "	819 29
"	30	103 Scott R. Wilder .....	" "	494 02
"	30	104 J. A. Watson .....	" "	505 25
"	30	105 W. E. Codding .....	" "	191 42
"	30	106 M. Y. Moody .....	" "	122 76
"	30	107 Western Union Teleg. Co .....	Teleg'ms during March, 1875 .....	6 67
"	30	108 Fraser, Chalmers & Co .....	Repairs and furniture for dredge .....	193 08
"	30	109 John Alston & Co .....	Oil .....	89 27
"	30	110 O. Owens .....	[propeller wheel .....	85 98
"	30	111 S. D. Kimbark .....	Packing, belt, valves, wrenches .....	3 38
"	30	112 Wm. Cook .....	Iron .....	11 34
"	30	113 Norton & Co. .....	Blossburg coal .....	90 40
"	30	114 George B. Martin .....	Lumber, nails, oil, brooms, crock'y .....	148 01
"	30	115 George Gaylord & Co .....	Oats, corn, coal, cement .....	21 42
"	30	116 Baldwin & Stone .....	Lumber and brick .....	44 24
"	30	117 J. Rupley & Son .....	Pump, pick, shovels, iron .....	56 64
"	30	118 Dr. W. Bradley .....	Screws, copper, nails, labor, iron .....	104 49
"	30	119 George B. Norton .....	Oil, paint, glass, stationery .....	59 63
"	30	120 S. S. Chamberlain .....	Bedding .....	9 25
"	30	121 A. J. Wadsworth .....	Lookingglasses, mattresses .....	26 85
"	30	122 Chicago and Alton R. R. .....	Saddle, straps, repairs on harness .....	4 24
"	30	123 U. S. Express Co. .....	Freight .....	5 50
"	30	124 C. A. Welch .....	Expressage .....	10 64
"	30	125 H. G. Eddy .....	R. R. fare, repairs, making sheets .....	6 39
"	30	126 Almond Thomas .....	R. R. fare, expressage, chimneys .....	21 75
"	30	127 Wm. Thomas .....	Stabling, extra board of men .....	17 60
"	30	128 Brooks & Co. .....	R. R. fare, freight Blossburg coal .....	88 90
"	30	129 Irons & Pettit .....	Iron, labor, shovels, picks, nails .....	11 25
"	30	130 John Nelson .....	Nails .....	112 53
"	30	131 T. J. Clark .....	Lumber .....	11 25
"	30	132 Phillips & Co. .....	Hay .....	53 18
"	30	133 Child & Phipps .....	Lumber .....	23 75
"	30	134 M. A. & S. E. Dewey .....	Rubber boots .....	31 20
"	30	135 Forbes & Gehring .....	Nails, bolts, iron .....	11 59
"	30	136 John Manly .....	Oil, lamp, glass .....	22 36
"	30	137 John Vogel .....	Shovels, rope, iron .....	4 50
"	30	138 W. B. Titus .....	Water barrels .....	52 66
"	30	139 Scott R. Wilder .....	R. R. fare, Teleg., coal, cement .....	11 73
"	30	140 J. A. Watson .....	R. R. fare, extra board of men, sand .....	5 63
May	31	147 C. A. Welch .....	Pay-roll for labor .....	928 96
"	31	148 H. G. Eddy .....	" "	870 80
"	31	149 Wm. Keough .....	" "	420 17
"	31	150 Almond Thomas .....	" "	566 50
"	31	151 W. B. Titus .....	" "	346 59
"	31	152 Scott R. Wilder .....	" "	478 25
"	31	153 J. A. Watson .....	" "	446 75

## STATEMENT—CONTINUED.

Date.	No. of v'chr.	Name.	For what expended.	Amount.
1875.				
May	31	154 Western Union Telgr. Co.	Telegrams during April, 1875.	\$20 06
"	31	155 Gilbert, Hubbard & Co.	Pitch, oakum, rope.	159 34
"	31	156 Dean Brothers & Hoffman.	Stationery.	10 73
"	31	157 Norton & Co.	Lumber, shingles, rope, nails.	53 68
"	31	158 George B. Martin.	Coal, oats.	103 96
"	31	159 George Gaylord & Co.	Lumber.	80 06
"	31	160 J. Rupley & Son.	Nails, repairs.	16 89
"	31	161 Dr. W. Bradley.	Oil, putty, stationery.	12 07
"	31	162 C. A. Welch.	R. R. Fare, freight, leather.	10 96
"	31	163 H. G. Eddy.	" expressage, repairs.	5 25
"	31	164 Wm. Thomas.	"	15 40
"	31	165 Brooks & Co.	Files, nails, iron, stock and oil.	72 64
"	31	166 Wm. Adam.	Lumber.	30 98
"	31	167 B. F. Hall.	Oats.	3 75
"	31	168 Scott & Harrington.	Lumber, ear corn.	24 23
"	31	169 Colwell, Clark & Co.	"	86 50
"	31	170 Phillips & Co.	Oats.	84 82
"	31	171 Straw & Powell.	Screws, nails, files, pails.	138 90
"	31	172 M. A. & S. E. Dewey.	Towels, M. net, table cloths.	14 96
"	31	173 W. H. Hull.	Clock.	11 77
"	31	174 O. Trask.	R. R. fare, freight, coal, repairs.	5 50
"	31	175 W. B. Titus.	" stabling.	16 45
"	31	176 J. A. Watson.	Expenses as Commissioners, 3 mo.	2 00
"	31	177 Joseph Utley.	"	63 35
"	31	178 W. N. Brainard.	"	62 70
"	31	179 H. G. Anderson.	Piles, freight on pile driver.	70 77
"	31	180 Willard Johnson.	Pay roll for labor.	1,037 96
June	30	190 C. A. Welch.	"	903 76
"	30	191 H. G. Eddy.	"	994 65
"	30	192 Wm. Keough.	"	508 30
"	30	193 Almond Thomas.	"	541 88
"	30	194 W. B. Titus.	"	629 50
"	30	195 Scott R. Wilder.	"	434 75
"	30	196 J. A. Watson.	"	434 75
"	30	197 Western Union Telgr. Co.	Telegrams during May, 1875.	9 81
"	30	198 Frazer, Chalmers & Co.	Repairs on dredge.	29 56
"	30	199 Gilbert, Hubbard & Co.	Rope, canvass.	33 69
"	30	200 John Alston & Co.	Oil.	26 71
"	30	201 Bradford Hancock, assignee	Piles.	286 26
"	30	202 A. Friedly & Co.	Nails, zinc, labor.	7 27
"	30	203 J. S. Lather & Son.	Lumber.	5 28
"	30	204 Wm. Bevington.	" oil, rope, brooms.	19 87
"	30	205 Norton & Co.	" oats, coal.	125 46
"	30	206 George B. Martin.	Bolts, wirecloth, nails, tacks.	304 06
"	30	207 Baldwin & Stone.	Axes, scythes, files, nails, tacks.	20 01
"	30	208 J. Rupley & Son.	Bridles, repairs to hames.	34 30
"	30	209 A. J. Wadsworth.	Glass, brushes.	15 75
"	30	210 Wm. Hanley.	Oats.	1 35
"	30	211 Wm. Paddock.	Postage.	35 70
"	30	212 F. G. Harris, P. M.	R. R. fare, frt. coal, horseshoeing.	37 56
"	30	213 C. A. Welch.	Nails, iron.	12 39
"	30	214 Brooks & Co.	Castings and foundry work.	15 34
"	30	215 H. Humphrey.	Brass castings and foundry work.	67 41
"	30	216 R. Sandiford.	Oats.	31 51
"	30	217 Straw & Powell.	Lumber.	114 47
"	30	218 Phillips & Co.	Blacksmith work.	18 84
"	30	219 J. Leonard & Co.	Bran.	50 65
"	30	220 Black & Graves.	Recutting files.	5 00
"	30	221 H. & A. A. Belk.	Nails, iron, wirecloth, butts.	15 98
"	30	222 M. A. & S. E. Dewey.	Bolts, iron, lock, wrench.	20 88
"	30	223 John Manly.	Paint, oil, brush, glass.	14 01
"	30	224 E. G. Griggs.	Castings and foundry work.	22 24
"	30	225 Wm. Stomont.	Halter, saddle, repairs to harness.	27 98
"	30	226 S. P. Crouch.	R. R. fare, coal, blacksmithing.	24 10
"	30	227 W. B. Titus.	Stone.	12 05
"	30	228 David Green.	Piles and towing.	22 50
uly	9	229 Willard Johnson.	Pay roll for labor.	1,540 00
"	30	230 C. A. Welch.	"	910 09
"	30	231 H. G. Eddy.	"	1,032 28
"	30	232 Wm. Keough.	"	510 50
"	30	233 Almond Thomas.	"	586 34
"	30	234 W. B. Titus.	"	655 88
"	30	235 Scott R. Wilder.	"	421 25
"	30	236 J. A. Watson.	"	435 50
"	30	237 Western Union Telgr. Co.	Telegrams during June, 1875.	10 86
"	30	238 John Alston & Co.	Oil.	66 94

## STATEMENT—CONTINUED.

Date.	No. of v'chr	Name.	For what expended.	Amount.	
1875. July	31	244	Fraser, Chalmers & Co.....	Repairs on dredge and steamer.....	\$101 36
	31	245	Denis & Wheeler.....	Lantern globes .....	9 00
"	31	246	Davis & Murray.....	Lumber.....	270 11
"	31	247	Bradford Hancock, assignee	Piles.....	265 56
"	31	248	S. D. Kimbark.....	Iron.....	8 06
"	31	249	Norton & Co.....	Lumber, coal, nails, towing.....	299 30
"	31	250	George B. Martin.....	Oats, coal, ground feed .....	49 60
"	31	251	J. Rupley & Son.....	Nails, repairs, axes.....	26 53
"	31	252	Dr. W. Bradley.....	Paint, glass, oil, stationery.....	30 46
"	31	253	Julius Scheibe.....	Stone .....	16 48
"	31	254	John Geddes.....	Tallow.....	10 47
"	31	255	Henry G. Eddy.....	Shoeing horses, blacksmithing.....	2 60
"	31	256	Almond Thomas.....	Stabling, mending harness.....	9 05
"	31	257	Brooks & Co.....	Nails, iron .....	48 83
"	31	258	George P. Adams.....	Coal, use of boat.....	128 00
"	31	259	John Nelson.....	Lumber .....	39 20
"	31	260	B. F. Hall.....	Oats .....	3 00
"	31	261	James Home.....	Repairing bridge irons.....	5 00
"	31	262	Shuler & Bro.....	Lumber .....	23 46
"	31	263	M. A. & S. E. Dewey .....	Nails, scythes, wire cloth .....	28 35
"	31	264	George H. Rugg.....	Ash lumber, planing and sawing.....	11 68
"	31	265	W. B. Titus.....	R. R. fare, freight, telegraphing.....	26 45
"	31	266	J. A. Watson.....	Hay, horse shoeing.....	3 00
August	31	272	C. A. Welch.....	Pay-roll for labor .....	910 21
	31	273	H. G. Eddy.....	" "	984 38
"	31	274	Wm. Keough.....	" "	507 88
"	31	275	Almond Thomas.....	" "	556 75
"	31	276	W. B. Titus.....	" "	633 63
"	31	277	Scott R. Wilder.....	" "	432 88
"	31	278	J. A. Watson.....	" "	445 25
"	31	279	Western Union Telegr. Co.....	Telegrams during July, 1875.....	13 85
"	31	280	Fraser, Chalmers & Co .....	Repairs on dredge, files .....	30 62
"	31	281	Gilbert Hubbard & Co.....	Rope .....	32 48
"	31	282	Davis & Murray.....	Lumber..... [steamer.	332 68
"	31	283	Owen Owens .....	Repairs and fixtures for dredge and	20 10
"	31	284	Corn Exchange Nat. bank .....	Express on currency .....	7 60
"	31	285	A. S. Piper & Co.....	Oak lumber. Blacksmithing .....	9 67
"	31	286	Norton & Co.....	Lumber, rope, coal, oil .....	165 79
"	31	287	George B. Martin .....	Oats, coal .....	78 18
"	31	288	Baldwin & Stone .....	Bolts, iron, grindstone .....	14 43
"	31	289	J. Rupley & Son .....	Nails, rags, repairs .....	10 98
"	31	290	Dr. W. Bradley .....	Lead, oil, mucilage .....	106 93
"	31	291	James E. Casey .....	Brooms, crockery, barrel .. [C. O. D.	14 75
"	31	292	United States Express Co.....	Expressage, incl'dng tap & die sent .....	8 60
"	31	293	W. W. Glover .....	Brooms .....	5 13
"	31	294	John Par.....	Use of boat Mary O'rely .....	16 66
"	31	295	M. Depuy .....	Freight on boat .....	5 39
"	31	296	George C. West .....	" .....	5 50
"	31	297	C. A. Welch .....	R. R. fare, freight, nails .....	9 74
"	31	298	Brooks & Co.....	Nails, iron, pump, screws .....	118 96
"	31	299	Wm. Adam.....	Lumber .....	7 46
"	31	300	B. F. Hall.....	Oats, hay .....	19 65
"	31	301	Strawn & Powell .....	Axe, nails, basket, screws .....	152 70
"	31	302	M. A. & S. E. Dewey .....	Wall paper, stationery, brooms .....	12 93
"	31	303	Osman & Hapeman .....	Brick, salt .....	79 58
"	31	304	Hamilton & Hilliard .....	Blacksmith and machinist labor .....	3 00
"	31	305	Sheridan Manufacturing Co .....	Lock valves .....	4 7 2
"	31	306	Wm. Stormont .....	Iron, nails, auger, rope .....	97 35
"	31	307	John Manley .....	Hay .....	25 77
"	31	308	G. J. Green .....	Lead, oil, chimneys .....	53 99
"	31	309	E. T. Griggs .....	Brooms, tumblers .....	31 96
"	31	310	George Bennett .....	[age.	4 70
"	31	311	W. B. Titus .....	R. R. fare, expressage, freight, post .....	22 40
"	31	312	J. A. Watson .....	Horse shoeing, stab'ing, oats .....	4 42
"	31	313	Joseph Utley .....	Expenses as Commissioners, 3 mo. .....	29 50
"	31	314	W. N. Brainard .....	" .....	42 00
"	31	315	N. G. Anderson .....	Rent of treasurer's office 9 months .....	54 60
"	31	316	M. Anderson .....	Pay-roll for labor .....	75 00
September	30	323	C. A. Welch .....	" .....	921 66
"	30	324	H. G. Eddy .....	" .....	527 01
"	30	325	Wm. Keough .....	" .....	535 29
"	30	326	Almond Thomas .....	" .....	580 76
"	30	327	W. B. Titus .....	" .....	403 25
"	30	328	Scott R. Wilder .....	" .....	388 25
"	30	329	J. A. Watson .....	" .....	10 40
"	30	330	Western Union Telegr. Co.....	Telegrams during August, 1875.....	2 0 06
"	30	331	John Alston & Co.....	Oil .....	23 10
"	30	332	Child & Baker .....	One filter, pipe and pump .....	8 50
"	30	333	Dean Bro's & Hoffman .....	Envelopes .....	

STATEMENT.—CONTINUED.

Date.	No. of vchr.	Name.	For what expended.	Amount.
September	30	334 Norton & Co.	Lumber, coal, oil, shingles.	\$59 31
"	30	335 George B. Martin.	Coal, oats, oil.	88 43
"	30	336 Baldwin & Stone.	Shovels, bolts, iron.	24 27
"	30	337 J. Rupley & Son.	Picks, nails, files, repairs.	15 09
"	30	338 Dr. W. Bradley.	Lead, oil, glass, putty.	51 39
"	30	339 S. S. Chamberlain.	Mattress and mirror.	3 25
"	30	340 Henry Hopkins.	Hay.	23 28
"	30	341 James Baker.	Pasturing horse.	4 50
"	30	342 John Geddes.	Tallow.	7 08
"	30	243 F. G. Harris, P. M.	Postage.	44 35
"	30	344 Wm. Keough.	Horseshoeing, stabling, oats.	10 35
"	30	345 Almond Thomas.	Hay, stabling, oats.	4 01
"	30	346 B. F. Hall.	Oats.	9 80
"	30	347 Richard Barry.	Hay.	10 47
"	30	348 Clowell, Clark & Co.	Lumber.	41 78
"	30	349 Shuler & Bro.	" and matching.	126 07
"	30	350 Strawn & Powell.	Hay.	26 56
"	30	351 "	Nails, grindstone, castings, stove.	118 49
"	30	352 M. A. & S. E. Dewey.	Blacksmithing.	33 71
"	30	353 John Leonard.	R. R. fare, expressage, freight.	47 20
"	30	354 W. B. Titus.	Coal.	24 30
"	30	355 Murphy Bros.	"	3 52
"	30	356 Union Coal Co.	"	3 75
"	30	357 Northern Ill. iron and coal.	"	2 50
October	31	362 C. A. Welch.	Pay-roll for labor.	853 08
"	31	363 H. G. Eddy.	"	1,000 56
"	31	364 Wm. Keough.	"	617 43
"	31	365 Almond Thomas.	"	525 00
"	31	366 W. B. Titus.	"	588 50
"	31	367 Scott R. Wilder.	"	438 16
"	31	368 J. A. Watson.	"	397 63
"	31	369 Western Union Telegr. Co.	Telgms. during Sept. 1875.	9 76
"	31	370 Fraser, Chalmers & Co.	Repairs and fixtures on steamer.	159 00
"	31	371 Gilbert, Hubbard & Co.	Rope, oakum.	36 00
"	31	372 McArthur, Smith & Co.	Lumber.	56 06
"	31	373 A. S. Crocker.	Mattresses, pillows.	25 00
"	31	374 George B. Martin.	Coal, oil, oats, matches.	176 81
"	31	375 George Gaylord & Co.	Lumber, table cloths.	69 95
"	31	376 J. Rupley & Son.	Iron, pipe, chisel, file.	9 50
"	31	377 Dr. W. Bradley.	Glass, chimneys, oil, lead.	13 75
"	31	378 George B. Norton.	Bedding.	34 78
"	31	379 J. F. Daggett.	Pasturing horses.	6 50
"	31	380 United States Ex. Co.	Expressage.	5 15
"	31	381 Boyer & Corneau.	Use of boat "Augusta".	85 00
"	31	382 Joseph Duso.	" " " W. A. Steel".	153 00
"	31	383 C. A. Welch.	Freight on boats, R. R. fare.	4 27
"	31	384 Almond Thomas.	Stabling, repairing harness.	5 45
"	31	385 Wm. Adam.	Lumber.	196 84
"	31	386 Smith & Drew.	Blacksmith work.	6 35
"	31	387 B. F. Hall.	Oats.	4 70
"	31	388 Strawn & Powell.	Oats, hay.	97 19
"	31	389 Shuler & Bro.	Lumber.	77 35
"	31	390 Phillips & Co.	"	40 20
"	31	391 Forbes & Gehring.	Oil, glass, lead, glue.	10 73
"	31	392 Manly & Smeeton.	Bolt, iron, nails, steel.	36 43
"	31	393 Sheridan Mfg. Co.	Castings.	25 09
"	31	394 Wm. Stomont.	Castings, trimming.	36 06
"	31	395 S. P. Couch.	Repairs on harness.	16 60
"	31	396 George Bennett.	Repairs, brooms, grease, crockery.	6 40
"	31	397 John H. Hosford.	One pair mules and harness.	265 00
"	31	398 Robert Cannon.	Coal.	12 63
"	31	399 W. B. Titus.	R. R. fare, brick, repairs.	19 60
"	31	400 Scott R. Wilder.	Stabling, lumber.	2 85
"	31	401 Western Cement Co.	Cement.	33 50
"	31	402 A. Morse & Co.	Horse blankets.	12 00
November	30	409 C. A. Welch.	Pay-roll for labor.	845 58
"	30	410 H. G. Eddy.	"	922 72
"	30	411 Wm. Keough.	"	631 28
"	30	412 Almond Thomas.	"	493 82
"	30	413 W. B. Titus.	"	712 25
"	30	414 Scott R. Wilder.	"	444 50
"	30	415 J. A. Watson.	"	377 75
"	30	416 Western Union Telegr. Co.	Telgms. during Sept. and Oct., '75.	10 50
"	30	417 Fraser, Chalmers & Co.	Repairs on pump for steamer.	5 25
"	30	418 John Alston & Co.	Oil.	14 08
"	30	419 McArthur, Smith & Co.	Lumber.	1,202 62
"	30	420 Corn Ex. Nat. Bank.	Expressage on currency.	7 00
"	30	421 A. S. Piper & Co.	Blacksmith work, brick.	12 75
"	30	422 Phillip Reidy.	Bolts for dock.	2 50

## STATEMENT—CONTINUED.

Date.	No. of vh'r.	Name.	For what expended.	Amount.
1875. Nov.	30	423 Norton & Co.....	Lumber, lime, brick .....	\$12 14
"	30	424 George B. Martin.....	Coal, lumber.....	202 04
"	30	425 George Gaylord & Co.....	Lumber .....	50 96
"	30	426 Baldwin & Stone.....	Iron, rope, bolts .....	17 98
"	30	427 J. Rupley & Son.....	Repairs, screws, hinges .....	3 75
"	30	428 Dr. W. Bradley.....	Glass, stationery, paint.....	7 22
"	30	429 A. J. Wadsworth.....	Repairs to harness, straps .....	14 05
"	30	430 Jacob Smith.....	Hay .....	27 89
"	30	431 Levi Hartwell.....	Oats .....	68 84
"	30	432 United States Express Co.....	Expressage .....	1 30
"	30	433 C. A. Welch .....	Freight, blacksmithing, livery hire.....	8 47
"	30	434 H. G. Eddy.....	Horsekeeping, expressage, oats .....	1 82
"	30	435 Joseph Duso.....	Use of boat W. A. Steel.....	87 00
"	30	436 Brooks & Co. [Canton, O.	Shovels, nails, bolts, iron .....	21 16
"	30	437 Wrought Iron Bridge Co. of	Iron bridge across canal at Joliet .....	750 00
"	30	438 Jacob Bradert .....	Mason work on bridge at Joliet .....	47 37
"	30	439 B. F. Hall .....	Oats, forwarding telegrams .....	14 39
"	30	440 Colwell, Clark & Co.....	Lumber .....	2 92
"	30	441 Shuler & Bro .....	" .....	74 66
"	30	442 Mauley & Smeeton .....	Nails, locks, iron .....	9 18
"	30	443 L. Lockwood.....	Bolts, rope, iron .....	11 89
"	30	444 John Leonard.....	Blacksmithing .....	29 29
"	30	445 Murphy Bros.....	Coal .....	3 55
"	30	446 G. H. Rugg.....	Oak lumber .....	37 50
"	30	447 W. B. Titus .....	Railroad fare, expressage .....	16 40
"	30	448 S. R. Wilder .....	Stabling, blacksmithing .....	2 00
"	30	449 J. A. Watson .....	Stabling, horseshoeing, ex. b'd men .....	8 15
"	30	450 Western Cement Co.....	Cement .....	52 00
"	30	451 Charles N. Hawes .....	Blacksmith work .....	4 10
"	30	452 L. B. Cook .....	R. R. fare, repairs to lock house .....	9 75
"	30	453 Peoria Transcript Co.....	Envelops .....	6 00
"	30	454 Joseph Utley .....	Expenses as Commissioner, 3 mos .....	33 95
"	30	455 W. N. Brainard .....	" " " .....	53 35
"	30	456 H. G. Anderson .....	" " " .....	19 55
"	30	457 Mrs. M. Anderson .....	Rent of office for Treasurer, 3 mos .....	25 00
Total .....				\$61,075 79

## "J."—Receipts for Lockage at Henry.

Date.	No. of v'chr.	Name of collector.	Where collected.	Amount.
1875 April 30..	30	Albert F. Dow .....	Chicago .....	\$35 30
" 30..	32	W. E. Coddng .....	Ottawa .....	209 74
" 30..	33	W. T. Mason .....	LaSalle .....	6 55
" 30..	34	W. T. House .....	Henry .....	2,191 88
May 31..	40	Albert F. Dow .....	Chicago .....	268 74
" 31..	42	W. E. Coddng .....	Ottawa .....	452 43
" 31..	43	W. T. Mason .....	LaSalle .....	17 53
" 31..	44	W. T. House .....	Henry .....	641 28
June 30..	51	Albert F. Dow .....	Chicago .....	162 49
" 30..	53	W. E. Coddng .....	Ottawa .....	400 99
" 30..	54	W. T. Mason .....	LaSalle .....	2 12
" 30..	55	W. T. House .....	Henry .....	356 26
July 31..	62	Albert F. Dow .....	Chicago .....	256 72
" 31..	64	W. E. Coddng .....	Ottawa .....	82 51
" 31..	66	W. T. House .....	Henry .....	284 30
Aug. 31..	72	Albert F. Dow .....	Chicago .....	155 16
" 31..	76	W. T. House .....	Henry .....	138 25
Sept. 30..	80	Albert F. Dow .....	Chicago .....	222 76
" 30..	84	W. T. House .....	Henry .....	270 31
Oct. 31..	92	Albert F. Dow .....	Chicago .....	229 57
" 31..	94	W. E. Coddng .....	Ottawa .....	9 58
" 31..	95	W. T. Mason .....	LaSalle .....	1 03
" 31..	96	W. T. House .....	Henry .....	245 91
Nov. 30..	110	Albert F. Dow .....	Chicago .....	194 60
" 30..	112	W. E. Coddng .....	Ottawa .....	28 80
" 30..	113	W. T. Mason .....	LaSalle .....	8 73
" 30..	114	W. T. House .....	Henry .....	164 82
		Total .....		\$7,038 36

## "K."—Disbursements for Lockage at Henry.

Date.	No. of v'chr.	Name.	For what expended.	Amount.
1874. Dec. 31..	23	W. T. House .....	Salary as collector .....	\$97 15
1875. Jan. 31..	38	" .....	" .....	100 00
Feb. 28..	63	" .....	" .....	100 00
March 31..	96	" .....	" .....	103 75
April 30..	143	" .....	" .....	104 20
" 20..	144	Wm. Duke .....	lock-tender .....	41 33
" 30..	145	Chas. J. Sleator .....	" .....	41 33
May 31..	184	W. T. House .....	collector, exchange .....	82 85
" 31..	185	Wm. Duke .....	lock-tender .....	40 00
" 31..	186	Chas. J. Sleator .....	" .....	40 00
" 31..	187	George Heath .....	Patent fees on fixtures for lock .....	300 00
June 30..	230	W. T. House .....	Salary as collector, exchange .....	80 55
" 30..	231	Wm. Duke .....	lock-tender .....	40 00
" 30..	232	Chas. J. Sleator .....	" .....	40 00
July 31..	268	W. T. House .....	collector, exchange .....	82 30
" 31..	269	Wm. Duke .....	lock-tender .....	40 00
" 31..	270	Chas. J. Sleator .....	" .....	40 00
Aug. 31..	319	W. T. Huose .....	collector, exchange, team .....	83 75
" 31..	320	W. Duke .....	lock-tender .....	40 00
" 31..	321	Chas. J. Sleator .....	" .....	40 00
Sept. 30..	358	W. T. House .....	collector, exchange .....	82 07
" 30..	359	Wm. Duke .....	lock-tender .....	40 00
" 30..	360	Chas. J. Sleator .....	" .....	40 00
Oct. 31..	404	W. T. House .....	collector, exchange, wood, oil, match's .....	90 07
" 31..	405	Wm. Duke .....	lock-tender .....	40 00
" 31..	406	Chas. J. Sleator .....	" .....	40 00
Nov. 30..	459	W. T. House .....	collector, exchange .....	81 15
" 30..	460	Wm. Duke .....	lock-tender .....	37 33
" 30..	461	Chas. J. Sleator .....	" .....	37 33
		Total .....		\$2,025 16

*"L"—Receipts and Disbursements on account of the Little Wabash River Improvement, from December 1, 1874, to November 30, 1875, inclusive.*

Date.	No. of	Name.	From what rec'd, or for what exp'd.	Amount.
RECEIPTS.				
1875. May 14		W. G. Butts & Co.	Rent of water power to Jan. 1, 1875.	\$165 00
" 14.		W. P. Abshier, collector.	Toils collected in month Dec. 1874.	3 00
" 14.			" " " Meh. 1875.	4 50
" 14.			" " " April "	91 69
" 14.			" " " May "	4 17
" 14.		W. G. Butts & Co.	Rent of water power to July 1, 1875.	165 00
\$433 36				
DISBURSEMENTS.				
1875. May 14.	1	Dav. Wilson & Sam. Taylor.	Pay-roll for labor	\$30 00
" 14.	2	Z. T. Bowers.	Repairing skiff	3 00
" 14.	3	T. N. Smith.	Two pike polls.	1 50
" 14.	4	W. P. Abshier.	Labor	7 00
" 14.	5		Services as collector	25 84
" 14.	6	H. G. Anderson.	Trav. expenses going to N. Haven.	25 25
July 6.	7	Wm. Thomas.	" " "	27 00
" 26.	8	M. M. Buck & Co.	Iron, wire rope	32 76
Nov. 26.	9	H. G. Anderson.	Trav. expenses going to N. Haven.	28 20
" 26.	10	W. P. Abshier.	Pay roll for labor	70 88
" 26.	11	"	Iron, straw, lumber, repairs	15 95
" 30.	12	H. G. Eddy.	Pay-roll for labor	19 50
" 30.	13	Charles Hovey.	Blacksmithing	12 00
" 30.	14	J. P. Decker.	Lumber and nails	3 90
" 30.	15	W. G. Butts.	Lumber	2 00
" 30.	16	H. G. Eddy	Services foreman, & exp. N. Haven.	55 91
\$360 69				
362 73				
\$290 06				
Balance Dec. 1, 1875, as per report of Canal Com'rs, p. 24...				
Balance .....				

*NOTE.—This balance of \$290 06 is still advanced by the Treasurer, to be refunded out of the receipts for tolls and rents from water power.*

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## APPENDIX.

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*List of Notes on Hand, November 30, 1875.*

Number of notes.	No. on note.	Amount of note.	Total of notes.	Total.
1—Sale in 1863, sale on 20 yrs. time, interest payable annually		\$711 00	\$711 00	
		252 00	252 00	
2— " 1874.	1	150 00	300 00	\$963 00
3— " 1875.	2	1,550 00	4,650 00	300 00
3— " "	3	250 00	750 00	
3— " "	4	196 00	588 00	
3— " "	5	583 31	1,749 93	
				7,737 93
				\$9,000 93

*Statement of number Canal Boats running; of Miles run; of Clearances issued and of Tons transported on the Illinois and Michigan Canal during sixteen years, viz: from 1860 to 1875, inclusive.*

Date.	Clearances issued	Boats running.	Miles run.	Tons transported
1860	3,926	201	235,684	367,437
1861	6,339	194	415,599	547,295
1862	7,044	211	474,976	673,590
1863	5,810	240	418,713	619,599
1864	4,527	228	300,340	510,286
1865	4,907	228	360,614	616,140
1866	5,488	230	406,784	746,815
1867	4,183	209	357,623	746,954
1868	4,128	218	345,169	737,827
1869	4,524	219	385,050	817,738
1870	2,903	179	243,650	585,870
1871	3,523	186	278,948	629,975
1872	*5,018	173	334,820	783,641
1873	*4, 3	172	328,164	849,533
1874	*4, 2 6	152	288,075	712,020
1875	*3,544	142	259,878	676,025

\* Includes clearances at Henry.

† Of this number, 16 are steam canal boats.

*Statement of Canal Tolls collected at LaSalle, Ill., on Shipments going North, for each year from 1860 to 1875, inclusive, and amount collected at Henry, Ill., on Shipments going North, from 1872 to 1875, inclusive.*

Date.	LaSalle.	Henry.	Total.
1860	\$38,138 97		\$38,139 97
1861	80,261 95		80,261 95
1862	107,541 91		107,541 91
1863	75,548 05		75,548 05
1864	44,972 19		44,972 19
1865	83,729 43		83,729 43
1866	70,645 33		70,646 33
1867	66,432 31		66,432 31
1868	54,610 62		54,610 62
1869	69,180 83		69,180 83
1870	22,159 57		22,159 57
1871	34,623 83		34,623 83
1872	23,000 53	\$12,509 05	35,509 58
1873	20,693 01	7,372 35	28,065 36
1874	13,024 55	8,521 07	21,545 62
1875	8,305 69	3,704 33	12,010 02

“M.”—Statement of Articles cleared Illinois and Michigan Canal 1871, 1872, 1873, 1874 and 1875, and Lock at Henry, 1872, 1873, 1874 and 1875.

Articles.	1871, Canal.	1872, Canal.	1873, Canal.	1872, Lock at Henry.	1873, Lock at Henry.	1874, Canal.	1874, Lock at Henry.	1875, Canal.	1875, Lock at Henry.
Ale and beer									
Barrels.	18	26	4	102	42,366	104	65,940	27	27
Cider.	12	20,205	39	32,404	1,217	55	1,770	45	45
Flour.	15,923	12,874	162	6,743	1,609	604	1,438	1,220	1,220
Flour, common.	5,216	735	5	3,721	924	21	294	1	1
Lime, hydraulic.	987	23	306						
Oil.	15	2,359	5						
Pork.	12,367	13,278		16,930	18,891		18,894		171
Salt.	13	2							
Vinegar	13	3		193					
Whisky and highwines.	1 $\frac{1}{2}$								
Gypsum.	126		45	97	1,474	1,152	350		200
Barley.		20				327			
Beans.		47		77					
Buckwheat.	5,116,181	6,492,236	726,235	6,668,736	454,131	5,203,308	526,450	2,396,843	240,246
Corn.	1,069,935	777,336	164,938	941,150	130,772	868,566	107,134	1,027,246	137,086
Oats.	3,304	11,396	35,143	5,600	2,722	5,498	1,141	12,220	12,220
Potatoes.	6,577	90,431	5,863	4,470	6,527	1,154	8,649	34,710	7,035
Rye.	103,289	191,490	36	253,843	22,117	231,372	9,622	282,457	72,753
Wheat.	402,105	49,610	1,500	1,38	1,800	31,325	2,000	57,070	1,900
Agricultural implements...Pounds.									
Butter.	485	8,770							
Bacon.		8,378							
Broom, corn	164,390	67,260		509,676		450,750			
Bran and shorts.	2,339,995	890,462		598,500					
Bark, tanners.	21,000	5,000							
Bath, brick.	320	300							
Coffee.		575							
Cordage.	60,000				20,000	29,500			
Coopers' ware.	53,349	34,150		49,725	28,850	22,025			
Carpenter and joiners' work.	14,736,230	15,792,500	1,752,000	50,350,693	2,727,000	40,508,000	4 220,000	39,100	39,100
Coal, mineral.	880,120	21,172	799	906	71,080	52,000	52,000	38,886,000	5,198,000
Drain pipe.		450							
Eggs.	5,300								
Empty barrels.	575,245	3,504,300							
Fife-clay.	1,800								
Fruit, home.	35,730	21,760	213,218						
Furniture, household.	16,696	52,646							
Grease.	2,000	920							
Grindstones.	2,560	4,000							
Hides and skins.	4,382	3,000							
Hams.	574	2,035							
Hair.	3,400	1,446							
Hops.								2,325,800	507,150

Hay and fodder	2,308	150,000	586,465	140,000	1,402,000
Hoops, and material for	60,000	170,000	2,206,032	4,692,000	570,000
Iron, wrought and cast	939,975	565,624	3,340,600	2,000	76,000
Iron, pig and scrap	1,490,726	2,800	2,56,000	1,911,760	25,947,000
Iron ore	47,098	2,56,000	11,230,000	21,548,000	134,246,000
Ice	870,000	50,944,600	27,594,000	98,150,000	98,150,000
Merchandise, including dry goods, groceries, hardware, cutlery, crockery and glass-ware	71,500	191,891	618,973	28,885	776,926
Molasses	3,550	46,321	2,280	5,015,442	5,015,442
Meat	1,675,386	5,333,334	7,010,500	5,015,442	5,015,442
Marble, un wrought	26,250	124,347	156,735	132,400	220,155
Machinery	112,950	2,033	58,576	83,873	33,330
Nuts	17,950	20,765	46,000	46,000	33,380
Nails and spikes	8,900	20,765	22,877	22,877	22,877
Powder	1,900	7,900	46,000	46,000	46,000
Pot and pearl ashes	2,230	20,000	20,000	20,000	20,000
Potter's ware	1,250	23,462	23,462	23,462	23,462
Rags	6,440	1,007,550	310,240	24,850,355	24,188,250
Shaving	1,038,542	34,334,965	975,068	1,321,150	1,610,644
Soap	8,201,010	34,10,440	310,240	24,850,355	2,828,000
Staves and headings	24,500	1,016,655	1,508	989,581	1,535,194
Sand and other earths	732,535	2,500	2,500	2,500	2,500
Stoves and hollow ware	1,950	702,750	40	40	40
Seeds	1,250	118,800	103,730	750	101,855
Tallow	6,279	1,100,029	42,058	944,956	20,720
Trees, shrubs and plants	61,770	1,400	2,692,600	215,975	3,250
Tobacco, not manufactured	3,350	1,100,029	2,692,600	6,843,800	22,150
Wooden ware	26,392	1,100,029	42,058	11,242,000	16,178,135
White lead	190,000	2,692,600	6,843,800	6,805,392	12,025,000
All other art, not enumerated	3,921,660	4,509,636	11,242,000	147,355	410
Brick	8,626,250	9,106,625	6,1,853	52,404,889	296,777
Lath	5,1,761	48,302	48,156,918	8,334	230,928
Shingles	36,720,541	37,928,775	475,818	475,818	475,818
Post and rails	346,207	225,704	278,483	278,483	278,483
Lumber, B. M.	56,653	56,653	416,680	3,000	319,736
Feet.	320,719	563,778	416,680	3,000	600
Siding	140,986	150,119	219,403	1,428	185,612
Timber, cubic feet	45,246	60,775	219,403	1,428	218,293
Flooring	4,162	4,974	219,403	1,428	219,403
Stone, rubble	281	3,437	219,403	1,428	219,403
C. Yards.	204	1,370	29	519	1,049
Stone dimension	278,948	334,820	14,442	328,164	9,014
Stone, dressed					10,357
Stone, McAdamizd.					251
Wood					259,875
Boats					11,478
No. miles					

*"N."—Exhibit from 1848 to 1875 inclusive,*

Year.	Ordinary repairs.	Extraordinary repairs, re- newals and hyd. works.	Gross expenses.	Tolls.	Canal opened.	Canal closed.	No. of days open.
1848....	\$36,452	\$6,744	\$43,197	\$87,890	April 19.....	Nov. 29.....	224
1849....	43,922	26,999	70,922	118,375	" 20.....	Dec. 6.....	231
1850....	38,418	19,996	58,415	125,504	March 22.....	" 6.....	259
1851....	39,447	19,027	58,475	173,300	" 15.....	" 8.....	269
1852....	42,816	10,692	53,508	168,577	" 29.....	" 8.....	255
1853....	40,383	4,486	44,870	173,372	" 14.....	" 12.....	274
1854....	36,587	16,654	53,242	198,326	" 15.....	" 2.....	263
1855....	38,216	32,657	70,873	180,519	April 3.....	" 12.....	253
1856....	33,101	58,357	91,458	184,310	" 8.....	" 4.....	241
1857....	37,256	65,825	103,082	197,830	May 1.....	Nov. 20.....	204
1858....	36,115	21,972	58,088	197,171	April 1.....	Dec. 1.....	244
1859....	34,026	40,406	74,432	132,140	March 16.....	" 3.....	264
1860....	34,308	48,275	82,583	138,554	" 8.....	Nov. 26.....	264
1861....	39,238	15,823	55,061	218,040	" 4.....	" 28.....	270
1862....	40,024	15,337	55,362	264,657	April 1.....	Dec. 3.....	247
1863....	49,294	13,021	62,715	210,386	March 4.....	" 1.....	271
1864....	47,535	18,572	66,107	156,607	" 10.....	" 1.....	265
1865....	39,255	85,614	124,869	300,810	April 10.....	Nov. 15.....	218
1866....	43,716	72,647	116,363	302,958	" 11.....	Oct. 31.....	203
1867....	46,152	116,504	162,656	252,231	" 10.....	Nov. 15.....	209
1868....	52,984	69,067	122,052	215,720	" 4.....	Oct. 31.....	210
1869....	49,514	42,251	91,765	238,759	" 7.....	Nov. 15.....	222
1870....	43,098	65,597	108,695	149,635	" 7.....	Oct. 8.....	184
1871....	54,555	42,667	97,222	159,050	" 6.....	Nov. 25.....	234
1872....	42,785	46,090	88,876	165,874	" 1.....	Dec. 1.....	244
1873....	*53,525	27,573	81,098	166,641	" 10.....	Nov. 20.....	225
1874....	\$49,139	24,659	73,798	144,831	March 30.....	" 20.....	236
1875....	46,241	28,270	74,511	107,081	April 15.....	" 28.....	228

NOTE.—The figures in the above table, from 1848 to May 1, 1871, are as given by the Trustees of the Illinois and Michigan Canal.

\* In this amount is \$15,400 paid collectors, locktenders, and incidentals, which would leave the amount properly chargeable to ordinary repairs \$38,125.

§ In this amount is \$15,399 paid collectors, locktenders, and incidentals, which would leave the amount properly chargeable to maintenance and repairs \$33,740.

|| In this amount is \$14,523 paid collectors, locktenders, and incidentals, which would leave the amount properly chargeable to ordinary repairs \$31,718.

THE LEASES OF WATER POWER  
Stand as they did at the last Report. The following is the schedule:

Name of Lease	Description of Lease.	Time.	Date given or renewed.	Yearly Rent.	Payable.	Remarks.
Norton & Co .....	Lot 1, block 122, Lockport.....	20 years.....	March 4, 1873.	\$300 00	Semi-annually.	Rent of lot 1 not included.....
Norton & Co .....	Lot 6, block 122, Lockport.....	20 " .....	May 1, 1873.	200 00	"	Rent of lot 6 not included.....
Norton & Co .....	Surplus water at Lockport.....	20 " .....	July 1, 1869.	2,177 00	"	Rent commenced July 1, 1873.....
G. W. Hyde.....	Dam No. 1, Joliet.....	20 " .....	July 17, 1855.	1,220 00	"	Additional rent com'ned July 1, 1872.
Lorenzo P. Sanger.....	Dam No. 2, Joliet.....	20 " .....	April 10, 1867.	913 00	"	" " " " "
S. D. Sprague.....	DuPage Dam .....	10 " .....	Nov. 18, 1872.	200 00	"	" " " " "
Ottawa Hydranlio Co.....	Ottawa .....	20 " .....	May 1, 1872.	750 00	"	" " " " "

"O."—*Unsold Canal Lots, November 30, 1875.*

Lots.	Block.	Valuation.	Total.
BRIDGEPORT.			
1, 2, 3, 4, 5, 6, 7, 8, 9.	12	*\$30,000 00	
	13	2,000 00	
LOCKPORT.			
1, 2.	71	† \$3,500 00	
4, 5.	102	† 2,575 00	
1, 2, 3.	103	690 00	
3.	114	80 00	
2.	116	80 00	
5, 6, 7, 8, 9, 10, 11, 12.	121	2,400 00	
1, 2, 3, 4, 5, 6.	122	3,000 00	
1, 2, 3, 4, 5.	123	1,425 00	
2, 3, 6, 7.	124	240 00	
1, 2, 3, 4.	125	200 00	
1, 2, 3, 4.	126	100 00	
2, 3, 6, 7.	127	200 00	
2, 3, 6, 7.	128	130 00	
1, 2, 3.	129	30 00	
	131	10 00	
	134	25 00	
	135	40 00	
\$32,000 00			
JOLIET.			
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.	1	\$110 00	
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	2	100 00	
4, 5, 6, 7, 8.	3	100 00	
6.	39	50 00	
	42	25 00	
1.	43	200 00	
	44		
10.	5	150 00	
11, 12, 13, 14, 15, 16.	37	2,000 00	
East part of lot 5, Old Town, called "McKee Track".	16	3,000 00	
\$14,755 00			
DU PAGE.			
1, 2.	21	\$40 00	
Worth nothing—inundated.	51		
8, 9, worth nothing—inundated.	4		
3.	16	10 00	
\$5,735 00			
KANKAKEE.			
1, 2, 3, 4, 5, 6.	1		
1, 2, 3, 4, 5, 6, 7, 8, 9.	2		
1, 2, 3, 4, 5, 6.	3		
1, 2, 3, 4, 5, 6, 7.	4		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	5		
1, 2, 3, 4, 5, 6, 7, 8, 9.	6		
	7		
1, 2.	8		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	9		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	10		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	11		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	12		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	13		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	14		
1, 2, 3, 4, 5, 6, 7, 8, 9, 10.	15		
1, 2, 3, 4, 5.	16		
.17 to 42, except 35 and 36			
Being in Sec. 31, T. 34, R. 9, containing 176.32 acres, at \$25		\$4,408 00	\$4,408 00
OTTAWA.			
1, 2, 3, 4, 5, 6, 7, 8.	20	\$10 00	
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.	21	4,000 00	
1, 2, 3, 4, 5, 6.	22	600 00	
	23	600 00	
	24	300 00	
	25	500 00	
	26	500 00	
	27	400 00	
	28	50 00	
\$6,960 00			

\* This amount includes buildings—i. e. Collector's office, Lock house, and old Hydraulic building.

† This amount includes building—i. e. Canal office.

‡ This amount includes buildings—i. e. State shop, barn, etc.

## STATEMENT—CONTINUED.

Lots.	Block.	Valuation.	Total.
<b>LA SALLE.</b>			
1, 3, 7, 12, 13.....	19	\$170 00	
5.....	37	50 00	
3, 12, 13.....	38	65 00	
9.....	41	75 00	
2, 4, 7, 10, 11, 12, 13.....	45	295 00	
6.....	58	225 00	
3, 4, 5.....	74	110 00	
1, 8, 13, 14.....	101	100 00	
1, 2, 7.....	124	40 00	
9.....	125	100 00	
10, (except right of way).....	126	75 00	
1, 2, 3, 5, (except right of way).....	127	185 00	
8, 9, 10, 11.....	127	400 00	
9, 10, 11.....	131	900 00	
2, 3, 4, 5, 6, 7, 8, 9, 10.....	137	2,220 00	
1, 2, 3.....	141	1,200 00	
1, 2, 3.....	142	750 00	
			<u>\$6,960 00</u>
<b>WINNEBAGO.</b>			
5, 8, 9, 12.....	39	\$105 00	
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17.....	40	240 00	
	48	523 00	
			<u>\$868 00</u>

*Unsold Canal Lands, November 30, 1875.*

Description.	Sec.	Town.	Range.	Acres.	Value per acre	Valuation of tract.
East point of island middle fraction S.W. frl. qr.	11	33	3	3.50	\$1 00	\$3 50
Fraction south of canal, E. hf, N.W. qr.....	17	33	3	.72	1 00	72
Three small islands.....	15	33	4			5 00
Part of island in north half.....	17	33	4			5 00
Island in section.....	19	33	5	52.44	6 00	314 64
South fraction of S.E. quarter.....	19	33	6	2.79	2 00	5 58
East part south fraction of S.E. frl. quarter.....	35	35	9	22.45	8 00	179 60
Island in section.....	1	33	7	13.09	1 00	13 09
Fraction north of canal, in N.W. quarter.....	9	33	7	14.00	25 00	350 00
East fraction of S.E. fractional quarter.....	11	38	12	4.60	10 00	46 00
N. frac. of S.W. frl. qr., and N. frac. S.E. frl. qr.	9	33	9	47.43	25 00	1,185 75
Total.....						<u>\$2,108 88</u>

**RECAPITULATION.**

	Valuati .	Total.
Unsold Lots—Bridgeport, 10	\$32,000 00	
"    Lockport, 54	14,755 00	
"    Joliet, 38	5,735 00	
"    DuPage, 6	50 00	
"    Kankakee, 149	4,468 00	
"    Ottawa, 32	6,960 00	
"    LaSalle, 57	6,960 00	
"    Winnebago, 22	868 00	
L d .....		<u>\$71,736 00</u>
		<u>2,108 88</u>
Total.....		<u>\$73,844 88</u>

NOTE 1.—A number of the foregoing Lots and Lands have been re-appraised since our last Report; also, a few have been erroneously reported in former Reports, (having been fully paid for, but not deeded,) and are omitted in this Report.

NOTE 2.—There are several parcels of real estate in the city of Chicago (Canal lands) not included in the above list, for the reason that they are in the possession of adverse parties. Some of them are very valuable.

*Commissioners.*

JOSEPH UTLEY, .....	DIXON, ILL.
H. G. ANDERSON, .....	PEORIA, ILL.
W. N. BRAINARD, .....	CHICAGO, ILL.

*List of Officers and Agents employed by the Board of Canal Commissioners, in 1875.*

Name.	Occupation.	Compensation.
William Thomas.....	General Superintendent .....	\$2,500 per ann.
William Milne.....	Clerk in general office.....	1,020 "
S. A. Anderson.....	Clerk in Treasurer's office .....	600 "
Albert F. Dow.....	Collector of Tolls, at Chicago.....	† 1,400 "
William Milne.....	"    "    Lockport .....	960 "
W. E. Codding.....	"    "    Ottawa .....	960 "
W. T. Mason.....	"    "    LaSale .....	960 "
W. T. House.....	"    "    Henry .....	960 "
William Cook.....	Inspector of Boats, at Chicago .....	* 60 per mo.

† And rent of Engineer's house at Bridgeport.

\* During season of navigation, with rent of old Lock house.

## RATES OF TOLL

*Established on the Illinois and Michigan Canal, and the Lock at Henry, in the Illinois River, for the year 1815, by resolution of the Board of Canal Commissioners, passed the 9th of April, 1875.*

On Freight Boats per mile on the Canal.....	3½ cents.
Lockage at Henry—Freight Boats.....	.1½ cents per ton measurement.
Lockage at Henry—Steam Boats.....	.1½ " " "
Lockage at Henry—Ice Boats.....	.1½ " " "

On the following articles, per 1,000 lbs. per mile, and in the same proportion for a greater or lesser weight, the Rates of Toll on Canal, and Lockage at Henry, are as follows:

"Through Freight" is that which is cleared from Henry to Chicago, or Chicago to Henry. "Local Freight" includes all other freight.

ARTICLES.	Through freight. Tolls in mills.	Local freight. Tolls in mills.	Lockage. Lockage in cents.
Beans.....	3	3	5
Barley.....	2½	3	5
Buckwheat.....	3	3	5
Bran.....	3	3	5
Bark, tanners'.....	3	3	5
Barrels, empty.....	3	3	5
Cotton, raw, in bales.....	1	1	3
Cooper's ware.....	3	3	5
Corn.....	2½	3	4 8-10
Charcoal.....	1	2	1
Coul, per ton, per mile.....	1	1	3
Coke.....	1	2	3
Clay.....	1	1	3
Drainage Pipe.....	2	2	5
Flour.....	2	2½	3
Furniture, household.....	3	3	5
Hay and Fodder.....	3	3	5
Hemp.....	2	2	3
Heading.....	3	3	5
Hoops, and materials for.....	3	3	5
Hubs, Boat Knees and Bolts.....	2	3	5
Iron, pig and scrap.....	1½	2	5
Iron, railroad.....	2	3	5
Iron, wrought and cast.....	2	3	5
Ice.....	1	1½	3
Iron Ore.....	1	1	3
Lime, common.....	2	2	5
Lime, hydraulic.....	1	1½	3
Lead pipe, sheet and roll.....	1½	2	5
Lead, pigs and bars.....	1½	2	5
Merchandise, (including Hardware, Dry Goods, Cutlery, Groceries, Crockery, Glassware, and all other articles not specified).....	2	2	5
Meal.....	3	3	5
Machinery.....	3	3	5
Mechanics' tools.....	3	3	5
Oats.....	2½	3	5
Oil cake.....	3	3	5
Rye.....	2½	3	5
Salt, in sacks or barrels.....	1	1½	3
Seeds.....	3	3	5
Shorts and Screenings.....	3	3	5
Ship Stuff.....	3	3	5
Staves.....	3	3	5
Sand and other earth.....	½	½	3
Wheat.....	2½	3	5
Zinc Spelter.....	2	2	5

*Rates of Toll—Continued.*

ARTICLES.	Through.	Local.	Lockage.
	<i>mills.</i>	<i>mills.</i>	<i>cents.</i>
On each 1,000 feet of Lumber, per mile.....	6½	7½	10
On each 1,000 feet of Dressed Flooring, per mile.....	5	6	10
On each 1,000 feet of Siding, per mile.....	4	5	10
On each 1,000 Lath or Shingles, per mile.....	1	1	3
On each 1,000 Brick, per mile.....	5	5	10
On each 100 cubic feet of Timber, in rafts, per mile.....	20	30	70
On each 100 Split Posts or Fence Rails, per mile.....	5	7½	10
On each 100 Railroad Ties, per mile.....	10	15	15
On each cord of Wood, per mile*.....	10	15	14
On each cubic yard (27 cub. ft.) Dressed or Sawed Stone, per mile.....	7½	10	24
On each cubic yard (27 cub. ft.) Rubble Stone, per mile.....	4	5	10
On each cubic yard (27 cub. ft.) Dimension Stone, per mile.....	6	8	18
On each cubic yard (27 cub. ft.) McAdamized Stone, per mile.....	3	4	9

\* PROVIDED, that on Wood transported over 33 miles, the tolls shall not exceed 50 cents per cord. All TIMBER on boats will be taken board measure.

 The weight of a box, crate, vessel, or thing, in which any article may be contained, shall be added to the weight of the article itself, and toll computed accordingly.

Duplicate Bills of Lading required in all cases, one to be deposited with the Collector to whom toll is paid.

N. B.—The attention of all Masters and Shippers is hereby directed to the following sections of the Rules, By-Laws and Regulations of the Illinois and Michigan Canal, to-wit: Sections 55-63, inclusive, and the Rules established for the Lockage of Boats at Henry.

W. N. BRAINARD, SECRETARY.

## NOTE.

By resolution of the Board of Canal Commissioners, passed April 9, 1875, the toll on through Grain shipped and cleared from Henry to Chicago, was reduced from 3 mills to 2½ mills.

By resolution of the Board of Canal Commissioners, passed April 9, 1875, the toll on Stone shipped from Lemont and intermediate points, through Canal and Henry Lock, was made *through* rates.

By resolution of the Board of Canal Commissioners, passed May 18, 1875, the toll on Drainage Pipe was reduced from 3 mills to 2 mills, through and local.

By resolution of the Board of Canal Commissioners, passed May 18, 1875, the toll on Salt was reduced from 2 mills to 1½ mills local, and 1 mill through.

By resolution of the Board of Canal Commissioners, passed July 9, 1875, the toll on Sand was reduced from 1 mill to ½ mill, through and local.

## REPORT OF CHIEF ENGINEER.

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### IMPROVEMENT OF ILLINOIS RIVER, CHIEF ENGINEER'S OFFICE, COPPERAS CREEK, Dec. 1, 1875.

*To the Hon. Board Canal Commissioners:*

GENTLEMEN:—By your request I would most respectfully present a statement of the progress of the lock and dam at Copperas creek since the date of my last annual report, December 1, 1874, and of its present condition.

At that time the lock pit had been excavated, and the foundation of the lock completed by the U. S. government and the State at an expenditure by the government of \$62,358 90, and by the State of \$11,367 33, making a total of \$73,726 23, not including engineering and miscellaneous expenditures. Work had also been done under the contract for constructing the lock and dam (except foundation to lock) to the amount of \$61,520, which consisted in quarrying, cutting, delivering and laying 3,000 cubic yards of masonry in the lock walls, 50 cubic yards of vertical wall, cutting 839 cubic yards of face stone for lock walls, which then remained at Steele's quarry near Joliet, and 240 cubic yards of cut face stone delivered at the lock. Also 344 cubic yards of backing and vertical wall stone and 500 cubic yards of loose stone delivered. Some other minor work had been done, such as excavating canal above lock, building guard banks, delivering and driving piles for foundation of vertical walls and the delivery of timber, plank and iron for the work.

In the month of December, 155 cubic yards of masonry was laid in the lock walls and 40 yards in the vertical wall, some excavation was done at head and foot of lock, a small amount of guard bank was built and most of the second floor between lock walls was laid. The cutting of face stone at the quarry was continued throughout the winter, which was the principle work done after December, except cutting logs for timber for the construction of the dam. Only a small amount of work was done until the latter part of April, owing to the high stage of water in the river during the months of March and April. On the 22d of April 5 canal boat loads of stone for the lock walls were delivered from the quarry at Joliet, and 15 loads were received during the month, making 836 cubic yards, besides about 100 yards from Henry that had been left in low water last year. In the month of May 33 boat loads, in June 28 boat loads, and in July 9 loads were delivered from Joliet, making in all 85 boat loads or 4,900 cubic yards.

About the 1st of May the water in the river had reached so low a stage that the contractor commenced pumping the water from the lock pit, and on the 15th of May commenced laying stone on the lock walls.

This work progressed very well until the last day of July, when the storms that occurred all over the west raised the river so much that it became necessary to let the water into the lock to save breaking the coffer dam and having it fill suddenly. Thus work was suspended on the lock walls and was not resumed until the 11th of September, and then only on the highest part of the walls, as the river was then rising again, and, fearing the results, it was thought best not to entirely pump the water from the lock pit. The water was held from the pit at this time by protecting the coffer dam at the foot of the lock, and since then the water has not prevented the progress of the lock walls and at this date they are very near completed. There has been laid this year 5,640 cubic yards of masonry in the lock walls, and 442 cubic yards of vertical wall on the shore side at head of lock.

No work has been done on the abutments to the dam, or the piers at head and foot of lock on the river side, or the outside river protection walls, for the reason that there has been no low water this year since the 20th of February. In June the water went down to less than 3 feet above low water, but only for a few days; since that time it has been fluctuating between 4 and 12 feet, averaging from 5 to 6 feet above low water. At this date it is about  $3\frac{1}{2}$  feet, which is lower than any time since June. For the past eight years the river has been at about its lowest stage of water from July to December, except in 1869 when it was extremely high until near the last of August, and was low water during October and November of that year. This year seems to be an exception to all other years.

On the 17th of July, by consent of the Canal Commissioners, the contract for the lock and dam was assigned and transferred, from the 1st day of July, by Willard Johnson, to Archibald McArthur, of Chicago, including the reserved 15 per cent., with a new bond, given for \$67,000, signed by Archibald McArthur and Roswell K. Bickford, of Chicago, and William McArthur, of Cheboygan, Mich. The work is now progressing under the party to whom it was transferred. The total amount of work performed by Willard Johnson to 30th of June, was \$131,060, on which he was paid \$111,401, leaving \$19,659 as the reserved 15 per cent. Since that time the amount of work done by McArthur has been \$39,780, on which has been paid \$23,511, there is due for work done during November, \$10,302, making the total amount of work done, \$170,840, on which the 15 per cent. retained amounts to \$25,626, and when the November estimate is paid the total payment will be \$145,214, to which add \$5,500, to be paid as  $\frac{1}{3}$  of 15 per cent. retained on \$110,000 on completed lock walls, making in all paid \$150,714.

#### PRESENT CONDITION OF THE WORK.

**LOCK AND FIXTURES**—The lock walls are very nearly finished, only about 15 cubic yards of masonry to be laid in the coping of the upper mitre sill wall, and that will be completed in a very short time if the weather permits; several pieces of coping are being cut. A portion of the irons for hanging the gates are inserted; all the wrought and cast iron for the gates (except the valve gates, capstans and fixtures) necessary has been delivered ready for use. The timber for the gates and mitre sills has not been procured, but will be this winter and delivered for an early insertion in the lock.

## VERTICAL AND SLOPE WALLS.

There will be about 4,000 cubic yards of vertical wall and 1,500 cubic yards of slope wall required in all. About one-fourth of these stone have been delivered, and 492 cubic yards of vertical wall laid. Part of the stone have been quarried at Kingston, and will be delivered by boats as they are wanted. A quarry has been opened some 2 miles up Copperas creek from Utica, from which it is proposed to obtain the balance of stone required for this kind of work and haul by teams to the lock this winter.

## ENTRANCE TO LOCK AT HEAD AND FOOT.

The excavation of the canal above and below the lock is about two-fifths finished. The foundation for vertical wall on shore side at head is laid for two hundred feet above the lock and one hundred and fifty feet of the wall is commenced, some sixty feet in length is nearly completed; on the river side, at head, thirty to forty feet of foundation is laid and the vertical wall commenced.

## GUARD BANK AND OLD DYKE ON WEST SIDE OF RIVER.

There is about four thousand feet in length of guard bank to build from lock up the river to old dyke, which is raised from six to nine feet above the natural surface of the ground, and will be nineteen feet above low water or near high water mark when finished; two-thirds of the earth work is finished and one-third of the lining and rip-rap protection completed. There is about two miles of old dyke to be raised to near the same height as the guard bank, one mile of this is nearly completed, and more than one-half the work required is done. On the east side of the river there is one and one-half miles of guard bank to be built to which nothing has been done; this bank is not as heavy as on the west side, as it will only be raised thirteen feet above low water, the high floods will run over it, for this reason it will be protected with rip-rap or pavement on all sides and top.

## MATERIALS FOR DAM.

About three-fourths of the timber for the dam, including the square piles, was cut in the woods along the river last winter, and perhaps three-fifths of it has been delivered. A steam saw mill has been erected at the work and is now engaged in sawing the timber for the dam, about one-third of it is sawed. This work will continue until all the logs delivered are prepared for the dam; the balance will be procured this winter. The stone for abutments to dam is delivered, also the piles for the foundations and a portion of the stone for filling cribs. The iron for bolts for putting the work together is delivered and bolts mostly made.

## LOOSE STONE FOR DAM AND RIP-RAP WALLS, ETC.

There will be about 15,000 cubic yards of this kind of work in all; 1,248 cubic yards have been laid in frieze wall to lock and protecting guard banks; 1,320 cubic yards are delivered and the balance will be delivered this winter from the quarries above referred to, and from Kingston where a considerable amount has been quarried, by boats, as they are required as the work progresses next year.

## PREPARATIONS FOR COMPLETING.

A coffer dam has been built around the lower end of the canal at foot, and is being extended along the river side of lock, and if the weather should be favorable, will be continued so as to embrace the west abutment of dam. This will enable the contractor to nearly complete the excavation at the lower end of lock, put in the concrete apron at foot, get in the foundations, commence the vertical walls and raise them above water. It is hoped that the same will be done to the outside river wall and west abutment of dam this winter, all depending, however, on the condition of the weather.

## EXPENSES FOR ENGINEERING.

	1874.	1875.	Total.
For services of engineers.....	\$6,142 41	\$7,453 89	\$13,596 30
office furniture.....	87 66	10 00	97 66
stationery.....	60 05	11 35	71 40
incidentals.....	157 02	123 27	280 29
Totals.....	\$6,447 14	\$7,598 51	\$14,045 65
It will require to complete the work, say.....			10,000 00
Total.....			\$24,045 65
The estimate for engineering last year.....			19,138 89
Increase.....			\$4,906 76

This increase is made in consequence of the Legislature, at its last session, not making the appropriation asked for by the Commissioners to complete the work, thereby extending the time of completion one year. From present appearances this will be the only increase in the cost of the lock and dam over the estimate of last year, unless some unforeseen matter should arise, not at present contemplated.

## COST OF LOCK AND DAM COMPLETE.

From examinations made during the past year I can see no reason for changing the estimate, made in the last report, for the amount of work to be performed on this contract; when completed some items may vary, yet the aggregate will not be far from that amount, which was \$298,549; this leaves a balance of work yet remaining to be done of \$127,709. The entire cost of the work will then stand as follows:

Amount expended by U. S. Government on foundation.....	\$62,359 80
Amount expended by State Government on foundation.....	11,367 33
Estimated cost for lock and dam at contract prices.....	298,549 00
Amount.....	\$372,276 13
Contingent expenses to date.....	\$3,050 34
Engineering, to date.....	14,045 65
Engineering, to complete.....	10,000 00
Contingent expenses to complete.....	1,350 00
	28,445 19
Total cost.....	\$400,722 12
Deduct amount expended by U. S. Government.....	62,359 80
Balance for State.....	\$338,362 32
Amount done by State to date—	
On foundation.....	\$11,367 33
On contract for lock and dam.....	170,840 00
For engineering and incidentals.....	14,045 65
For contingent expenses.....	3,050 34
Total done by State.....	199,303 32
Remaining to be done.....	\$139,059 00

## SUCCESS OF THE IMPROVEMENT.

The lock and dam at Henry has been in use during four navigable seasons, and the results show that everything contemplated by this lock and dam has been accomplished, not only in the perfect navigation from this point to the entrance of the canal at LaSalle, but in the practical use of a lock of this large size. It has been demonstrated beyond a question, that if all the locks and dams required on this river were built, it would afford good navigation for at least 8 months in the year to the largest class of steamboats, and for barges 300 feet long and 72 feet wide, drawing six feet of water, and would become one of the most important navigable rivers of this country; it would be the great thoroughfare for heavy freight in either direction, and its influence for cheap transportation would be felt all over this and adjoining States.

The lock at Henry is operated by three men, one of them being collector of tolls, with perfect ease, and boats are locked through in from 20 to 30 minutes with this number of men. This demonstrates the easy working of gates hung by suspension in preference to gates running on a track in the bottom of the lock. I witnessed a practical test of this in September, last, while examining the locks on the Louisville and Portland Canal, on the Ohio river. At that point there are two locks combined, of nine feet lift each, 350 feet in length between the gates, 80 feet wide, which is five feet wider than the lock at Henry. The gates run on a track in the bottom of the lock and are operated by capstans on the lock walls, connected with gearing inside the walls, on which chains wind that are attached to the bottom of each gate, one set of chains to open each gate and another to close the same. I witnessed the locking up of a steamboat through these locks; it took 54 minutes to close the lower gates, the extra time caused, probably, by mud, or something else, between the gates and mitre sill, which could very easily have been washed out by opening valves to middle gates; nine minutes to fill the lock with water, eight minutes to open the middle gates two-thirds open so that the steamer could pass through, as it was only 45 or 50 feet wide; the boat was two minutes passing into the second or upper lock, eleven minutes to close the middle gates with 22 men on the capstans, half on each side, ten minutes to fill the upper lock with water and six minutes to open the upper gates. The locking time was one hour and forty minutes, with some twenty-five men at work operating the gates, the steamer helping push the gates open with her bow, the engines working steam.

The lock gates at Henry are operated by capstans standing on the walls, to which are attached wire ropes and spars: one rope and spar are secured to the top of the mitre post of the gate; the rope winding on the capstan, pulls the gate open, and the spar with another rope attached pushes the gate in closing, both ropes running on the same capstan, in separate sections, one winding up while the other is running out. Three men on each side of the lock, six in all, will pass a boat through with ease in fifteen minutes or less; it takes about four minutes to close the lower gates, from three and one-half to four minutes to fill the lock of seven foot lift, and four minutes to open the upper gates; the other three minutes allowed for sundry delays. Men are used only on one side at a time in opening and closing the gates, and occupy twenty to thirty minutes in locking a boat. There is no trouble filling or discharging the lock of water in three and one-half or four minutes with the number and kind of valves in use.

## TIME OF COMPLETION OF THIS LOCK AND DAM.

If the tolls of the canal and lock at Henry are sufficient the next year to furnish the money required for this work there is no doubt but it can be brought into use by the first of October, 1876, provided the river should be low enough during the summer months to admit of the dam being built. After the failure of the Legislature of this State, at its last session, to make the appropriation asked for to complete the work, not as much work was done the early part of the past season as was desired, and owing to the stage of the river since the first of August it has been impossible to put in the foundations of the abutments to dam, and of the outside river walls; therefore, this part of the work is not as far advanced as I had intended it should be at this time. Notwithstanding this result, with a favorable season next year the work can be completed by the time specified if sufficient funds are provided to carry it through.

I herewith present a statement showing total work done in each month under the contract for this lock and dam, the 15 per cent. retained, and the monthly and total payments.

All of which is respectfully submitted,

DANIEL C. JENNE,  
Chief Engineer.

*Statement showing the total work done on the lock and dam at Copperas creek in each month, the 15 per cent. deducted and the payments.*

Months.	Total estimate..	Work done during the month.	Monthly 15 per cent. retained.	Total 15 per cent.	Payments.....	Total payments..
1874.	March.....	\$900	\$900	\$135	\$765	\$765
	April and May.....	3,780	2,880	432	2,448	3,213
	June.....	8,280	4,500	675	1,242	7,038
	July.....	10,800	2,520	378	1,620	9,180
	August.....	13,140	2,340	351	1,971	11,169
	September.....	20,120	6,980	3,047	3,018	5,933
	October.....	43,080	22,960	3,444	6,462	17,102
	November.....	61,520	18,440	2,766	9,228	36,618
	December.....	65,580	4,060	609	9,837	52,292
	January.....	68,480	2,900	435	10,272	55,743
	February.....	69,600	1,120	168	10,440	58,208
	March.....	71,300	1,700	255	10,695	59,160
1875.	April.....	87,580	16,280	2,442	13,137	60,605
	May.....	109,420	21,840	3,276	16,413	74,443
	June.....	131,060	21,640	3,246	19,659	93,007
	July.....	144,020	12,960	1,944	21,603	111,401
	August.....	148,600	4,580	687	22,290	122,417
	September.....	152,120	3,520	528	22,818	126,310
	October.....	158,720	6,600	990	23,808	129,302
	November.....	170,840	12,120	1,818	25,626	134,912
	Totals.....			\$25,626		\$145,214
	Add $\frac{1}{2}$ of 15 per cent. retained on completed lock walls.....				5,500	
	Total paid .....					\$150,714